This is the entire search history. Each answer set has its own query display

EPPERSON 10/071,707

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=> d his

     (FILE 'HOME' ENTERED AT 11:41:57 ON 02 MAY 2003)

     FILE 'HCAPLUS' ENTERED AT 11:42:07 ON 02 MAY 2003
L1           107 S OSTRESH J?/AU
L2          5423 S YU Y?/AU
L3          1022 S HOUGHTEN R?/AU
L4          6440 S L1-3
L5            19 S L4 AND ?TRIAZIN?
L6             5 S L5 AND "1,3,5-TRIAZINE"
L7             5 S L5 AND "1,3,5-TRIAZINO"
L8             9 S L6-7
L9             1 S L8 AND "2,4,6-TRIONES"
                 SELECT RN L9 1

     FILE 'REGISTRY' ENTERED AT 11:45:54 ON 02 MAY 2003
L10           37 S E1-37
L11           22 S L10 AND NCNCNC/ES
                 SAVE L11 TEMP EPP707INV/A

     FILE 'HCAPLUS' ENTERED AT 11:47:10 ON 02 MAY 2003
L12            1 S L9 AND L10

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     FILE 'ZCAPLUS' ENTERED AT 11:51:07 ON 02 MAY 2003
                 E COMBINATORIAL/CT
                 E COMBINATORIAL LIBRARY+ALL/CT
                 E COMBINATORIAL CHEMISTRY+ALL/CT
                 E HIGH THROUGHPUT SCREENING+ALL/CT
                 E SOLID PHASE SYNTHESIS+ALL/CT

     FILE 'HCAPLUS' ENTERED AT 11:53:38 ON 02 MAY 2003
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                 E HIGH THROUGHPUT SCREENING+PFT/CT
L14          1709 S HIGH THROUGHPUT SCREENING+PFT/CT
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L16          4858 S COMBINATORIAL LIBRARY+PFT/CT
L17          4946 S 28-19/SC,SX
L18            11 S L14-16 AND L17
L19            11 S L18 AND ?TRIAZIN?
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L23             1 S L22 AND ?TRIAZIN?(3A)?TRION?
L24             1 S L13 AND ?TRIAZIN?(3A)?TRION?

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L25                STR

     FILE 'REGISTRY' ENTERED AT 12:05:18 ON 02 MAY 2003
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                 SAVE L27 EPP707P/A
                 SAVE L27 EPP707P/A TEMP
L28           22 S L11 AND L27
L29           32 S L27 NOT L28
L30           20 S L29 NOT PMS/CI
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inventor search

index Searching

all are inventor cite L12

parent STR search

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L31             STR L25

     FILE 'REGISTRY' ENTERED AT 12:13:41 ON 02 MAY 2003
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L33          53 S L31 SSS FUL SUB=L27
L34           1 S L27 NOT L33
              SAVE TEMP L33 EPP707S1/A

     FILE 'HCAPLUS' ENTERED AT 12:15:30 ON 02 MAY 2003
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L36          28 S L35 NOT L9
L37           0 S L36 AND L14-16
L38           0 S L36 AND (COMBINATOR? OR LIBRAR? OR THROUGHPUT)
L39           0 S L36 AND SOLID PHASE

     FILE 'REGISTRY' ENTERED AT 12:22:50 ON 02 MAY 2003

     FILE 'HCAPLUS' ENTERED AT 12:23:03 ON 02 MAY 2003
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L41           0 S L40 NOT L9

     FILE 'CAOLD' ENTERED AT 12:28:22 ON 02 MAY 2003
L42           2 S L33

     FILE 'STNGUIDE' ENTERED AT 12:31:35 ON 02 MAY 2003

     FILE 'BEILSTEIN' ENTERED AT 12:33:58 ON 02 MAY 2003
L43           0 S L31
L44           4 S L31 FUL
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← subset search

29 cites for L33 cpds

← subtracting out applicant

text search

2 cites

4 cpds

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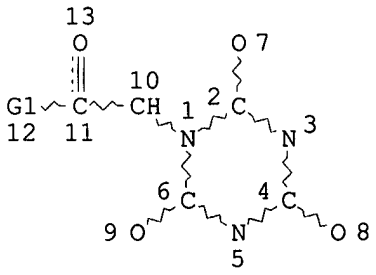

OH / O-metal

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
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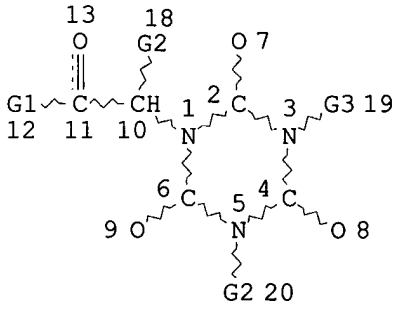

aryl or cycloalkyl } can be substituted

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VAR G3=17/15
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DEFAULT MLEVEL IS ATOM
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GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE
L33 53 SEA FILE=REGISTRY SUB=L27 SSS FUL L31 53 cpds
L35 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L33 29 cites in HCAPLUS

Registry / CAOLD Searches

EPPERSON 10/071,707

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=> d que 142
L25             STR
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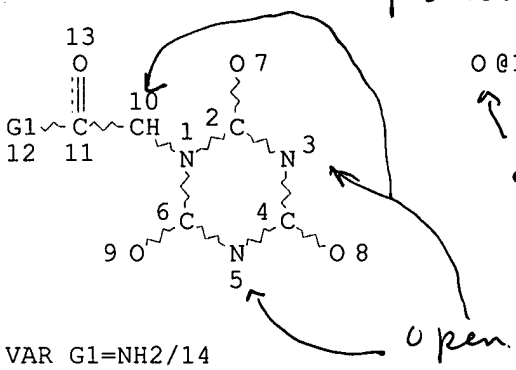

parent STR

O @14

olt / o-metal

open

2

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DEFAULT MLEVEL IS ATOM
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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS  14

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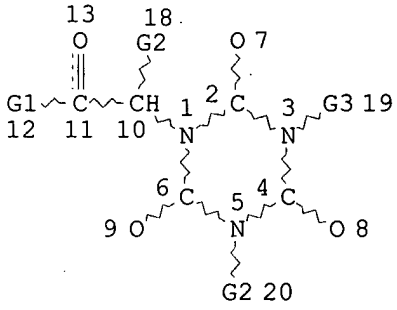
54 cpds

subset search



O @14 Cb @17 Ak @15 ← can be substituted

Cb @17 ↑ aryl or carbocycle

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VAR G2=H/15/17
VAR G3=17/15
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS  19

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L42           2 SEA FILE=CAOLD ABB=ON  PLU=ON  L33
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53 cpds

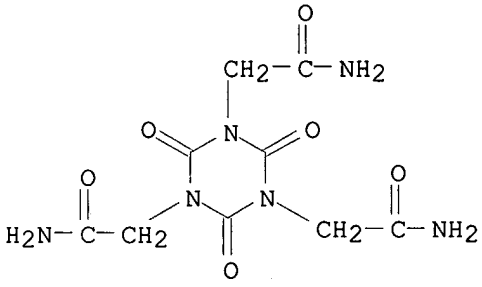
2 citations

=> d all hitstr 1

L42 ANSWER 1 OF 2 CAOLD COPYRIGHT 2003 ACS
AN CA64:9750a CAOLD
TI isocyanurate compds. and preparative processes
AU Burdick, Donald L.; Osborn, M. D.
DT Patent
TI isocyanurates
PA Gulf Oil Corp.
DT Patent

PATENT NO.	KIND	DATE
US 3230220		1966

IT 447-83-6 **1843-48-7** 1965-27-1 **1968-52-1**
IT **1843-48-7** **1968-52-1**
RN 1843-48-7 CAOLD
CN s-Triazine-1,3,5(2H,4H,6H)-triacetamide, 2,4,6-trioxo- (7CI, 8CI) (CA INDEX NAME)



RN 1968-52-1 CAOLD
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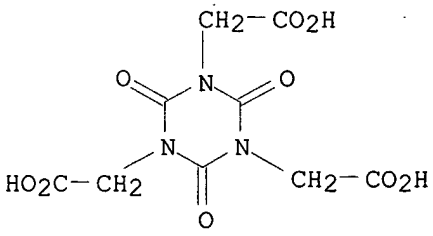
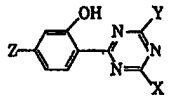


nitrile 53, paraformaldehyde 35, Ac_2O 15, and II 0.1 g. is dropped 1 cc. concd. H_2SO_4 in order to keep the temp. at 65–70°, the whole heated at 80° for 2 hrs., 500 cc. H_2O added, heated at 80°, filtered hot, and the filtrate cooled to give 75.1 g. I. Cf. following abstr. Hiroshi Kataoka

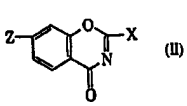
Triazines. Nitto Chemical Industry Co., Ltd. and Nitto Physico-Chemical Research Institute (by Hiroshi Hata, Motohiko Nishiide, and Kaoru Isono). Japan. 27,181('65), Nov. 29, Appl. Nov. 2, 1963; 2 pp. Manuf. of the same compd. as in the preceding abstr. from acrylonitrile and HCHO in the presence of KI is described. Cf. preceding abstr. Hiroshi Kataoka

Evaporation of urea for melamine production. Badische Anilin- & Soda-Fabrik A.-G. (by Guenther Hamprecht, Ludwig Vogel, Matthias Schwarzmann, and Rudolf Mohr). Ger. 1,208,306 (Cl. C 07*d*), Jan. 5, 1966, Appl. March 28, 1964; 2 pp. In the process of heating urea in a 1st stage to 350–550° and contacting the resulting fission products at 330–450° in a 2nd stage with a catalyst to obtain melamine, urea was evapd. without leaving any residue by heat exchange with the fission products of the 1st stage or with the gas leaving the 2nd stage (free of melamine) heated to 350–550°. Thus, a cylindrical reactor (diam. 0.9 m., height 5 m.) was fed with 2400 m.³ NH_3 and cyanic acid as obtained from the cleavage of urea, rate of flow 3 m./sec., temp. 475°. At the same time finely dispersed urea (250 kg./hr.) was blown in continuously. One part of the gaseous mixt. leaving the base of the reactor with a temp. of 370° was reheated to 475° and returned to the reactor; the other part converted to melamine in a 2nd reaction stage. Marianne Pauling

o-Hydroxyphenyl-*s*-triazines. J. R. Geigy A.-G. Neth. Appl. 302,937 (Cl. C 07*d*), Nov. 5, 1965; Swiss Appl. Jan. 24, 1963; 27 pp. The title compds. (I) are prepd. by the reaction of amidines with benzoxazinones of general formula II. The latter are made as described by Mustafa and Hassan (*CA* 51, 17,923*f*). Thus, 6 g. benzamidine hydrochloride was added portionwise to a soln. of 2 g. dry NaOMe in 50 ml. abs. EtOH, the mixt. stirred 1 hr. at room temp., 6.6 g. 2-ethyl-4*H*,1,3-benzoxazin-4-one II (X = Et, Z = H) added, and the mixt. refluxed 4 hrs. After cooling, H_2O was added dropwise until the pptd. NaCl had dissolved to give I (X = Et, Y = Ph, Z = H), m. 87° (MeOH). In the same way were prepd. the following I (X,



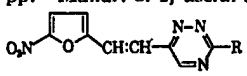
(I)



(II)

Y, Z, and m.p. given): Ph, $PhCH_2$, H, 147° (MeOH); Ph, cyclohexyl, H, 147° (EtOH); Ph, decyl, H, 62° (EtOH); *p*-$MeOC_6H_4$, heptyl, H, 50° (MeOH); *p*-$MeOC_6H_4$, decyl, OMe, 70° (EtOH); *p*-$MeOC_6H_4$, Me, OMe, 130° (EtOH); *p*-ClC_6H_4, Me, OMe, 200° (Methyl Cellosolve). I absorb uv light and are used as components of light filters, mixed with many types of colorless polymers to prevent yellowing, and in films to protect light-sensitive materials. Examples with detailed exptl. and tech. procedures are given for various applications. S. Vromen

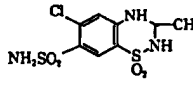
3-Alkylamino-6-(5-nitrofur-2-ylvinyl)-1,2,4-triazines. Koji Miura (by Masao Ikeda, Tomitsugu Ohashi, Yoshiko Igarashi, and Keiko Ichimura). Japan. 27,061('65), Nov. 26, Appl. Nov. 2, 1961; 5 pp. Manuf. of I, useful as chemotherapeutics



(I)

inhibiting the growth of staphylococci, *Bacillus subtilis*, *Escherichia coli*, *Shigella dysentheriae*, and *Salmonella typhosa*, is described. Thus, 1,5-bis(5-nitrofuryl)-1,4-pentadien-3-one-*N*-methylguanylhydrazone-HCl (10 g.) in 100 cc. ethylene glycol monomethyl ether is boiled with $NaHCO_3$ for 1 hr., the mixt. cooled, filtered, the filtrate made slightly acidic, and concd. *in vacuo*. The residue is washed with warm HCl and made alk. to give I (R = NHMe), pale-orange needles, m. 230° (decompn.) (EtOH); hydrochloride m. 187–8° (decompn.); sulfate m. >300°. Similarly prepd. are the following I [R and m.p. (decompn.) of the hydrochloride given]: NHEt, 160°; NMe_2, 210–12°. Hiroshi Kataoka

6-Chloro-3-(α-hydroxybenzyl)-7-sulfamoyl-3,4-dihydro-1,2,4-benzothiadiazine 1,1-dioxide. Tanabe Seiyaku Co., Ltd. Brit. 1,016,970 (Cl. C 07*d*), Jan. 12, 1966; Japan. Appl. April 11, 1964; 4 pp. The title compd. (I) was prepd. by the reaction



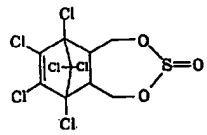
(I)

of 5-chloro-2,4-disulfamoylaniline with phenylglyoxal, and the product hydrogenated. Thus, 3 g. 5-chloro-2,4-disulfamoylaniline and 1.6 g. phenylglyoxal in 60 ml. 20% EtOH, and 1.5 ml. 10% HCl were heated 7 hrs. on a water bath. After cooling, 3-benzoyl-6-chloro-7-sulfamoyl-3,4-dihydro-1,2,4-benzothiadiazine 1,1-dioxide (II) was obtained, m. 259–60° (aq. Me_2CO). II (1 g.) in 20 ml. H_2O was dissolved in 10% aq. NaOH, and stirred with 0.25 g. $NaBH_4$ 2 hrs. with cooling. After standing overnight at room temp., the reaction mixt. was neutralized with 10% HCl, to give 0.8 g. I, m. 225–7° (decompn.) (aq. EtOH). I has natriuretic activity. P. J. S. Mitchell

Isocyanurate compounds and preparative processes. Donald L. Burdick and Myron D. Osborn (to Gulf Oil Corp.). U.S. 3,230,220 (Cl. 260–248), Jan. 18, 1966, Appl. April 24, 1961; 3 pp. The title compds. are prepd. by treating trisodium cyanurate (I) with a halo-substituted acetonitrile or acetamide to form tris(cyanomethyl)isocyanurate (II) and tris(carbamoylmethyl)isocyanurate (III). These derivs. are hydrolyzed to tris(carboxymethyl)isocyanurate (IV), useful in the prepn. of polymers. Thus, 195 g. I in 200 ml. $HCONMe_2$ was heated to 95° and treated, over 2 hrs., with 280.5 g. $ClCH_2CONH_2$ in 500 ml. $HCONMe_2$. The mixt. was held 18 hrs. at 90°, cooled to give a ppt., and filtered off. The solid was washed with H_2O and Me_2CO to give 240.2 g. cryst. III, m. 350–1°. III (5 g.) was refluxed 3 hrs. in 125 ml. concd. HCl to yield white cryst. IV, m. 264–6°. $ClCH_2CN$ (19.5 g.) was added over 2 hrs. to 19.5 g. I in 100 ml. $HCONMe_2$ at 50°. The mixt. was held 2.5 hrs. at 50°, cooled, and filtered. The filtrate was evapd. to dryness *in vacuo* and the residue triturated with 250 ml. of boiling H_2O to give II, m. 232–4°. II (2.6 g.) was refluxed 5 min. in 10 ml. concd. HCl to give 2.85 g. III. IV (91 g.), 53 g. propylene glycol, and 14.5 g. adipic acid was heated 3.5 hrs. at 140–50° to give a polyester having an acid number of about 85. The polymer was dissolved in 150 ml. H_2O contg. 8 ml. concd. NH_4OH to give a transparent soln. contg. 50% by wt. of solids and showing a viscosity of X-Y (Gardner Scale). J. R. Corrigan

SEVEN- AND HIGHER-MEMBERED RINGS

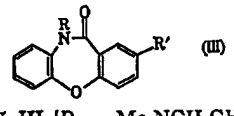
Separation of isomeric mixtures of 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,3,4-benzodioxathiepine 3-oxide (endosulfane). Hooker Chemical Corp. (by Hans L. Schlichting). Ger. 1,207,400 (Cl. C 07*d*), Dec. 23, 1965; U.S. Appl. Nov. 30, 1962; 4 pp. Isomeric mixts. of the title compd. (I) were sepd. by using different solvents. Thus, 300 g. I



(I)

were stirred at 45° with 100 ml. $ClCH{:}CCl_2$ (II). After cooling and filtration, the residue (110 g., m.p. 150–60°) was recrystd. from CCl_4 to give 70 g. of the higher melting isomer, m.p. 210°. The former filtrate was evapd. and the residue dissolved in 600 ml. MeOH. Filtration at 20° gave 140 g. I, m.p. 107–8° (99% purity). Evapn. of the filtrate gave 50 g. residue as 70:30 mixt. of both isomers. Similar purifications using $Cl_2C{:}CCl_2$ (III)–II–PrOH, III–II–MeOH, CH_2Cl_2–CCl_4–MeOH and II–III–*sec*-BuOH were described. K. Thewalt

10-Substituted dibenz[*b*,*f*][1,4]oxazepinone derivatives. Dr. A. Wander A.-G. Neth. Appl. 302,836 (Cl. C 07*d*), Oct. 25, 1965; Ger. Appl. Jan. 3, 1963; 9 pp. 2-Chloro-10,11-dihydro-11-oxodibenz[*b*,*f*][1,4]oxazepine (I) (12.3 g.) and 2.50 g. powd. $NaNH_2$ in 80 cc. dry dioxane refluxed 2 hrs., treated with 6.7 g. $Me_2N(CH_2)_2Cl$ (II) in 12 cc. MePh, and refluxed 16 hrs. yielded 14.2 g. III [R = $Me_2N(CH_2)_3$, R′ = Cl] (IV), $b_{0.07}$ 163–70°; IV.HCl m. 161–4°. I (6.2 g.), 7% excess powd. $NaNH_2$, and 60 cc. dry dioxane refluxed 1 hr., some 10 cc. dioxane distd. the residue heated 5 hrs. at 80° in an autoclave with 1.5 mole equivs. ethylene oxide and evapd., the residue refluxed 15 hrs. with 20 cc. $SOCl_2$ in 35 cc. $CHCl_3$, and the resulting resinous material heated 4 hrs. at 80° in a small vol. dioxane with 16 g. Me_2NH (as 33% alc. soln.), filtered, and basified with



(III)

NH_4OH yielded 62% III [R = $Me_2NCH_2CH_2$, R′ = Cl], $b_{0.02}$ 160–8°; oxalate m. 185–6° (MeOH–Et_2O). 4,2-Cl(MeO$_2$C)-$C_6H_3OC_6H_4NH_2$-*o* (8.0 g.) in 50 cc. dry dioxane, 1.29 g. powd. $NaNH_2$, and 4.1 g. II yielded 75% IV. Similarly were prepd. III (R = $Me_2NCH_2CH_2$, R′ = Me), $b_{0.07}$ 160–5°; HCl salt m. 157–60° (Me_2CO–AcOEt); oxalate m. 165–7° (Me_2CO–MeOH–Et_2O), and III [R = $Me_2N(CH_2)_2$, R′ = Me], $b_{0.07}$ 160–5°; oxalate m. 153–5° and 170–2° (MeOH–Et_2O). The III exhibit valuable thymoleptic and antidepressant activity. F. W. Hoffmann

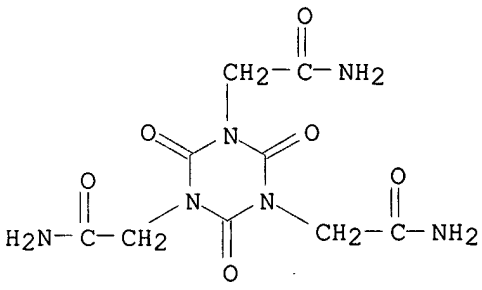
See also: Physical Organic Chemistry, Section 32. Hetero-

=> d all hitstr 2

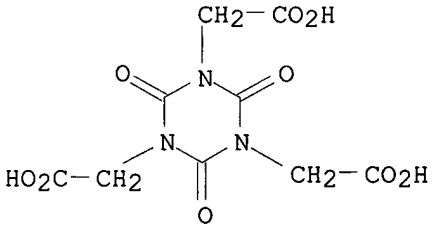
L42 ANSWER 2 OF 2 CAOLD COPYRIGHT 2003 ACS
AN CA63:619h CAOLD
TI isocyanurates
PA Spencer Chemical Co.
DT Patent

PATENT NO.	KIND	DATE
PI GB 988631		
DE 1195761		

IT **1843-48-7** 1965-27-1 **1968-52-1**
IT **1843-48-7** **1968-52-1**
RN 1843-48-7 CAOLD
CN s-Triazine-1,3,5(2H,4H,6H)-triacetamide, 2,4,6-trioxo- (7CI, 8CI) (CA INDEX NAME)



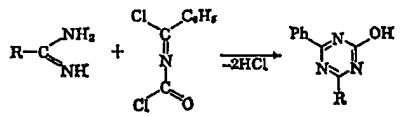
RN 1968-52-1 CAOLD
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo- (9CI) (CA INDEX NAME)



450 cc. 2*N* H_2SO_4. The reaction mixt. is heated 1 hr. at 50°, filtered, the residue suspended in H_2O (1200 cc.), dissolved with concd. NH_3, the soln. filtered and AcOH added to pH 5 to give I.
Giorgio A. Pagani

TRIAZINES AND OTHER 6-MEMBERED RINGS

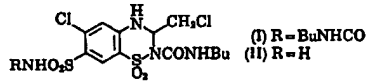
A new synthesis of 2-hydroxy-*s*-triazines. Farbenfabriken Bayer A.-G. (by Eberhart Degener, Hans Holtschmidt, and Hans G. Schmelzer). Fr. 1,379,156 (Cl. A 01*n*, C 07*d*), Nov. 20, 1964; Ger. Appl. Dec. 14, 1962; 21 pp. Benzamidine hydrochloride [10 parts (pts.)] dissolved in 20 pts. water is neutralized with a soln. of NaOH (7.7 pts.) in 10 pts. water. To the soln. maintained at 20–30° is added dropwise 13 pts. of phenylchloromethylene carbamic acid chloride. After 15 min., 12.8 pts. of 2-hydroxy-4,6-diphenyl-*s*-triazine is collected by suction, m. 295°. The following *s*-triazine derivs. are obtained by the same new general scheme (R, m.p., % yield given): SMe, 276°, —; 2-ClC_6H_4, 228–9°, —; CCl_3, 254–5°, 61; Et, 230°, 60; 3-cyclohexenyl, 264°, 80; 4-ClC_6H_4, 287–8°, 99; benzyl, 223–4°, 99; Me, 238°, 73; 4-MeC_6H_4, 284°, 99; 2-MeOC_6H_4, 288°, —; PhCH:NNH, 262°, ~100; 4-ClC_6H_4NH, 352–4°, 94.



G. A. Coppens

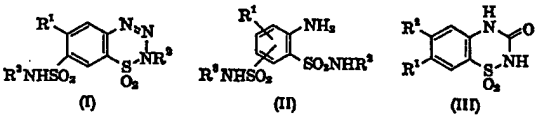
Preparation of 2-styryl-4,6-dihydroxy-1,3,5-triazine. Scientific Research Institute of Organic Intermediates and Dyes (by V. I. Mur). U.S.S.R. 168,708 (Cl. C 07*d*), Feb. 26, 1965, Appl. July 30, 1963. The title compd. is prepd. by heating styrylbiuret with an aq. soln. of NaOH and isolating the desired product by acidification at room temp. From *Byul. Izobret. i Tovarnykh Znakov* 1965(5), 25(Russ). MHCL

2-(*N*-Butylcarbamoyl)-3-chloromethyl-6-chloro-7-[*N*-(*N*-butylcarbamoyl)sulfamoyl]-3,4-dihydro-1,2,4-benzothiadiazine 1,1-dioxide. CIBA Ltd. (by George De Stevens and Lincoln H. Werner). Fr. M2850 (Cl. A 61*k*, C 07*d*), Nov. 16, 1964; U.S. Appl. Sept. 15, 1961; 12 pp.; cf. Belg. 622,464 (*CA* 59, 10090*a*). The title compd. (I), m. 137–40°, was prepd. from 4.3 g. 3-



chloromethyl-6-chloro-7-sulfamoyl-3,4-dihydro-1,2,4-benzothiadiazine 1,1-dioxide and is useful as a diuretic and natriuretic. The crude product was purified by careful addn. of HCl to an aq. NH_4OH soln.; the major contaminent II pptd. first.
D. E. Nettleton, Jr.

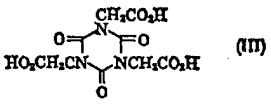
New derivatives of benzothiatriazine. May & Baker Ltd. Fr. 1,363,116 (Cl. C 07*d*), June 12, 1964, Appl. Dec. 9, 1960; 6 pp. I, useful as diuretics, are prepd. by diazotizing and cyclizing II. To 10 g. III (R^1 = SO_2NH_2, R^2 = Cl) in 40 cc. HCONMe$_2$ is added 0.75 g. NaH, the suspension heated to 70°, 5.5 g. $PhCH_2Br$ added, the mixt. stirred, poured on ice, the ppt. filtered off, and crystd. (EtOH) to give the 2-$PhCH_2$ deriv., m. 250–2°, 112 g. of which is dissolved in 1120 cc. 20% NaOH, refluxed 16 hrs., cooled, and HCl added, and the product recrystd. (MeOH) to give II [(R^1 = 5-Cl, R^2 = CH_2Ph, R^3 = H (4-position)], m. 155–60°. This product (3.75 g.) is suspended in a mixt. of 10 cc. AcOH and 12.5 cc. 2*N* H_2SO_4, diazotized, dild. with 100 cc. H_2O, and the product recrystd. (MeOH) to give I (R^2 = CH_2Ph, R^1 = Cl, R^3 = H), m. 161–2° (decompn.). Similarly are prepd. I (R^1 = Cl, R^2 = R^3 = Me), m. 154–5°, I (R^1 = F_3C, R^2 = R^3 = Me), m. 148–9°, and I (R^1 = Cl, R^2 = Me, R^3 = H), m. 166–70°.



R. K. Srivastava

Pesticides from hexachlorotrithiane tetroxide and trimethyltrithiane dioxide. Frank B. Slezak and Russell M. Bimber (to Diamond Alkali Co.). U.S. 3,171,778 (Cl. 167–33), March 2, 1965, Appl. Dec. 7, 1961; 4 pp. Continuation-in-part of U.S. 3,066,149 (*CA* 58, 11384*h*). 2,4,6-Trimethyl-1,3,5-trithiane 1,3-dioxide (I) are useful against fungi, nematodes, and insects, but have no herbicidal effects. I is prepd. by treating 100.5 g. 2,4,6-trimethyl-1,3,5-trithiane with 223 ml. 25% H_2O_2 in 1500 ml. AcOH below 35°. The solvent is distd. *in vacuo* and I is crystd. from hot benzene as a white solid, m. 181.0–2.5°. Also is prepd. 2,2,4,4,6,6-hexachloro-1,3,5-trithiane 1,1,3,3-tetroxide, m. 202–3°.
B. R. Briggs, Jr.

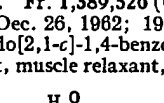
Isocyanurates. Spencer Chemical Co. Brit. 988,631 (Cl. C 07*cd*), April 7, 1965; U.S. Appl. April 24, 1961; 4 pp. The title compds. were prepd. by heating an alkali metal or a quaternary ammonium salt of cyanuric acid with halogenated $AcNH_2$ or MeCN at 50–150° in an inert medium, and subsequent acid hydrolysis. Thus, to a slurry of 195 g. trisodium cyanurate (I) in 200 ml. HCONMe$_2$ heated to 95°, a soln. of 280.5 g. $ClCH_2CONH_2$ in 500 ml. HCONMe$_2$ was added dropwise with stirring, the soln. kept 18 hrs. at 90°, and cooled to yield 240.2 g. cryst. tris(aminocarbonylmethyl) isocyanurate (II), m. 350–1°. A mixt. of 5 g. I in 125 ml. concd. HCl was refluxed 3 hrs., and cooled to yield tris(carboxymethyl) isocyanurate (III), m. 264–6°. Similarly, reaction of $ClCH_2CN$ with I gave tris(cyanomethyl) isocyanurate (IV), m. 232–4° (MeCN). IV (2.6 g.) in 10 ml. concd. HCl refluxed 5 min. gave II. A mixt. of 91 g. III, 53 g. propylene glycol, and 14.5 g. adipic acid was heated with stirring 3.5 hrs. at 140–50°. The polyester formed (acid no. ~85) was dissolved in 150 ml. H_2O contg. 8 ml. concd. NH_4OH to provide a transparent soln. contg. 50% by wt. of solids. This soln. had a viscosity of X–Y (Gardner Scale). III is useful in the prepn. of its polymers (polyesters and polyamides) which in turn are useful in forming coatings, and molded plastic articles.



Sister Miriam Grace Solomon

SEVEN- AND HIGHER-MEMBERED RINGS

Tranquilizing agents. J. R. Geigy A.-G. (by Karl J. Doebel and Heinz Pfenninger). Fr. 1,389,526 (Cl. A 61*k*, C 07*d*), Feb. 19, 1965; U.S. Appl. Dec. 26, 1962; 19 pp. Derivs. of 1,2,3,-4,6,12a-hexahydropyrido[2,1-*c*]-1,4-benzodiazepin-12(11*H*)-one (I) have anticonvulsant, muscle relaxant, and blood pressure and central nervous system depressant properties. They are prepd. by treating appropriately substituted *o*-aminobenzylpipecolinic acid with a mineral acid. These compds. are prepd. by the reaction of an *o*-nitrobenzyl halide with an ester of pipecolinic acid, followed by controlled redn. of NO_2 to NH_2 with Raney Ni, avoiding hydrogenolysis of the benzyl linkage. Ethyl *N*-(*o*-nitrobenzyl)pipecolinate, $b_{0.35}$ 150–2°, n_D^{25} 1.5266, was prepd. in 43-g. yield by the reaction of 31.4 g. ethyl pipecolinate in 200 ml. toluene with 34.3 g. *o*-nitrobenzyl chloride in the presence of 32 g. K_2CO_3 during 12 hrs. reflux. The toluene soln. was extd. with 3*N* HCl, the acid soln. was extd. with EtOAc, and then treated with alkali to pH 10. The ppt. was dissolved in $CHCl_3$, dried, and distd. A soln. of 33 g. in 500 ml. alc. with Raney Ni catalyst absorbed 2350 ml. H to give 24.7 g. of the amino ester, $b_{0.5}$ 146–7°, n_D^{25} 1.5392. A soln. of 24 g. amino ester in 300 ml. 3*N* HCl was refluxed 5 hrs., cooled, and adjusted to pH 10, giving a 70% yield of I, m. 182–3° (alc.); HCl salt m. above 250° (alc.). Similarly prepd. were the following derivs. of I: 8-Cl, m. 224–5° (alc.), methiodide m. 246–8° (butanone); *N*-oxide of 8-Cl deriv., prepd. by oxidn. of 1 g. in 10 ml. alc. with 1.8 ml. 30% H_2O_2, m. 162–3° (decompn.) (alc.); 9-cyano, m. 134° (vacuum sublimation); 9-methoxy, m. 205–7° (BuOH); 9-methyl, 40%, m. 231–2° (alc.); 8,9-dimethoxy, 21.6%, m. 203–4° (alc.); 9-F_3C, m. 185–6°; 9-chloro, m. 182–3°; 8,9-dimethyl, m. 229–30°; 8,9-dichloro, m. 199–200°; methiodide of I, 85%, m. 224–5° (decompn.)(butanone). The various substituted ethyl *N*-benzylpipecolinates prepd. were: 2-nitro-5-chloro, 66%, $b_{0.1}$ 153–4°; 2-amino-5-chloro, $b_{0.2}$ 154°; 2-nitro-4-cyano, $b_{0.005}$ 160°; 2-amino-4-cyano, m. 100–6°; 2-nitro-4-methoxy, $b_{0.2}$ 165–7°; 2-amino-4-methoxy, $b_{0.5}$ 163–5°.



J. C. Braun

Benzodiazepines. John Krapcho (to Olin Mathieson Chemical Corp.). U.S. 3,173,912 (Cl. 260–239.3), March 16, 1965, Appl. Oct. 2, 1961; 5 pp. The title compds. (I) or their acid addn. salts are prepd. by condensing an intermediate (II) with an amino alkyl halide of formula R'NAY where A is ethylene or trimethylene and NR' is bis(lower alkyl) amino. *o*-$O_2NC_6H_4COCl$ (III) is condensed with a glycine $RNHCH_2CO_2Z$ (IV) to yield a reaction product *o*-$O_2NC_6H_4CONRCH_2CO_2Z$ (V); V is converted to the corresponding *o*-amino deriv. (VI) by redn. with H by using a Pd–C catalyst; V or VI is treated with HCl to convert the salt or ester to its acid deriv. which is cyclized to II. Thus, *o*-$O_2NC_6H_4CO_2H$ is treated with $SOCl_2$ to give III. III in 100 ml. $CHCl_3$ is added dropwise in 30 min. to a stirred soln. of 114 g. IV (R = Ph, Z = K) in 150 ml. H_2O at 5–10°, NaOH (25 g.) in 200 ml. H_2O is added to neutralize reaction-liberated acid.

Inventor Search

EPPERSON 10/071,707

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=> d que l12 ?
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these 37 cpds are disclosed in the inventor's citation

1 cite w 37 cpds displayed

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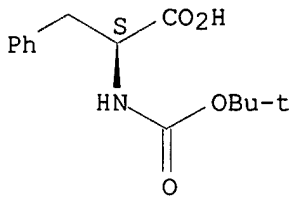
L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:532106 HCAPLUS
DOCUMENT NUMBER: 137:232618
TITLE: Efficient Solid-Phase Synthesis of 1,3,5-Trisubstituted **1,3,5-Triazine-2,4,6-triones**
AUTHOR(S): **Yu, Yongping; Ostresh, John M.; Houghten, Richard A.**
CORPORATE SOURCE: Torrey Pines Institute for Molecular Studies, San Diego, CA, 92121, USA
SOURCE: Journal of Combinatorial Chemistry (2002), 4(5), 484-490
CODEN: JCCHFF; ISSN: 1520-4766
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:232618

AB The solid-phase synthesis of 1,3-disubstituted and 1,3,5-trisubstituted **1,3,5-triazine-2,4,6-triones** from MBHA and Wang resin is described. Reaction of resin-bound amino acids with isocyanates yield resin-bound ureas, which further react with chlorocarbonyl isocyanate in toluene at 65 .degree.C to selectively afford the resin-bound 1,3-disubstituted **1,3,5-triazine-2,4,6-triones**. Selective alkylation at the N-5 position of the resin-bound 1,3-disubstituted **1,3,5-triazine-2,4,6-triones** was accomplished by treatment with alkyl halides in the presence of 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU). The desired products were cleaved from their solid support and obtained in good yield and purity. The method can be employed in prodn. of toltrazuril analog libraries for identification of new anticoccidial agents.

IT **13734-34-4P 457884-80-9P 457884-81-0P 457884-82-1P 457884-83-2P 457884-84-3P 457884-85-4P 457884-86-5P 457884-87-6P 457884-88-7P 457884-89-8P 457884-90-1P 457884-91-2P 457884-92-3P 457884-93-4P 457884-94-5P 457884-95-6P 457884-96-7P 457884-97-8P 457884-98-9P 457884-99-0P 457885-00-6P 457885-01-7P**
RL: CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP (Preparation)
(solid-phase synthesis of substituted **1,3,5-triazine-2,4,6-triones**)

RN 13734-34-4 HCAPLUS
CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



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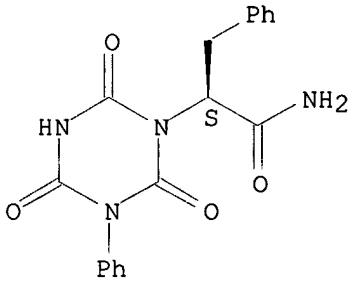
Absolute stereochemistry.



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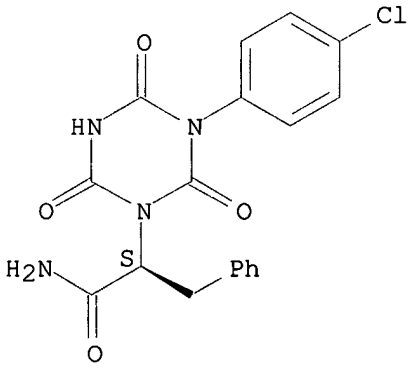
Absolute stereochemistry.



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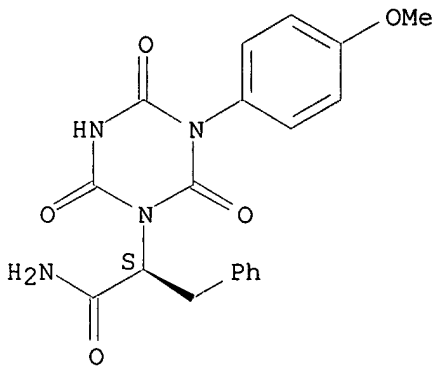
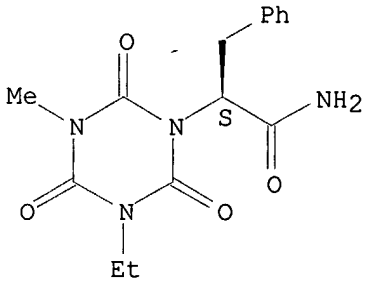
Absolute stereochemistry.



RN 457884-83-2 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetamide, 3-ethyltetrahydro-5-methyl-2,4,6-trioxo-.alpha.-(phenylmethyl)-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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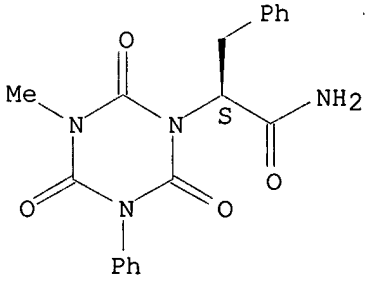
Absolute stereochemistry.



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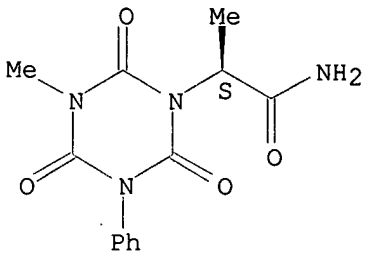
Absolute stereochemistry.



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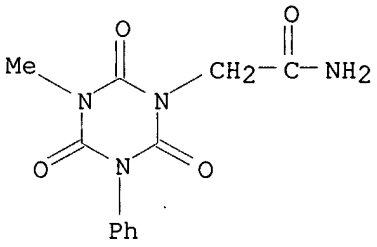

RN 457884-87-6 HCAPLUS
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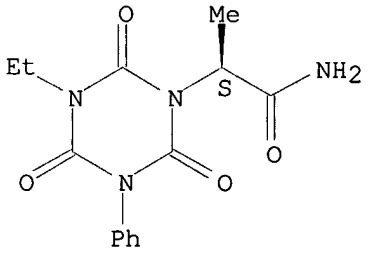
Absolute stereochemistry.



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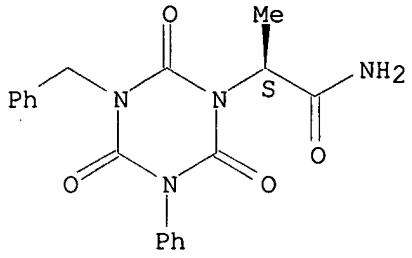
Absolute stereochemistry.



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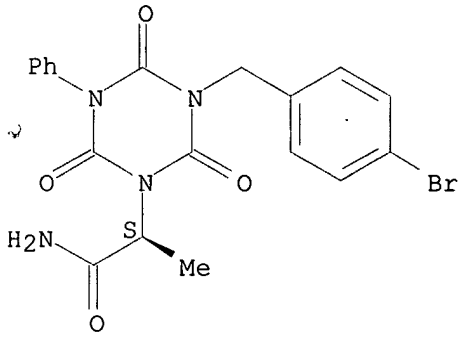
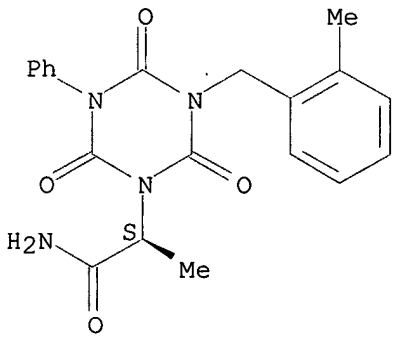
Absolute stereochemistry.



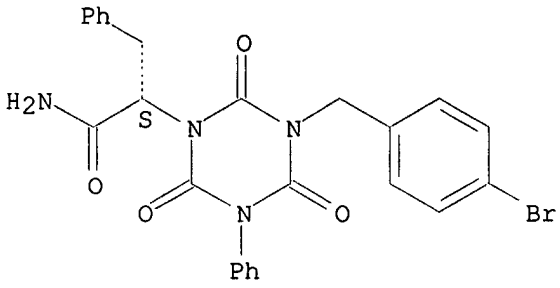
RN 457884-90-1 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetamide, tetrahydro-.alpha.-methyl-3-[(2-methylphenyl)methyl]-2,4,6-trioxo-5-phenyl-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



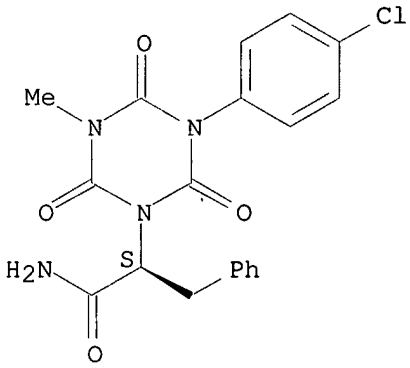
RN 457884-91-2 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetamide, 3-[(4-bromophenyl)methyl]tetrahydro-2,4,6-trioxo-5-phenyl-.alpha.-(phenylmethyl)-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



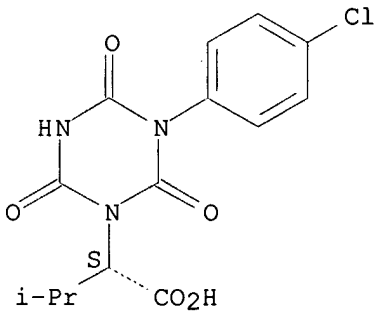
RN 457884-92-3 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetamide, 3-(4-chlorophenyl)tetrahydro-5-methyl-2,4,6-trioxo-.alpha.-(phenylmethyl)-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



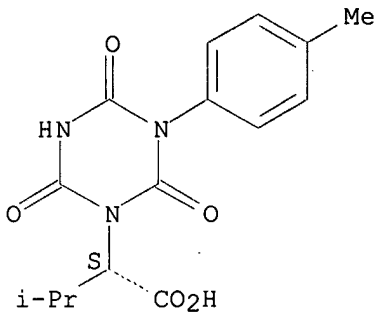
RN 457884-93-4 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-(4-chlorophenyl)tetrahydro-.alpha.-(1-methylethyl)-2,4,6-trioxo-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



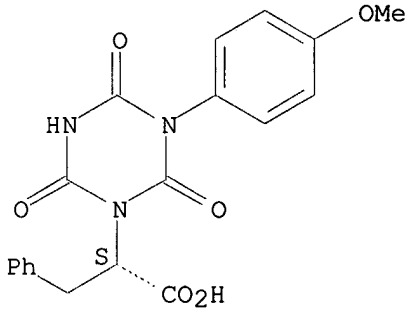
RN 457884-94-5 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-.alpha.-(1-methylethyl)-3-(4-methylphenyl)-2,4,6-trioxo-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



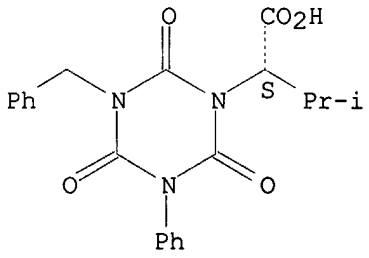
RN 457884-95-6 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-3-(4-methoxyphenyl)-2,4,6-trioxo-.alpha.-(phenylmethyl)-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



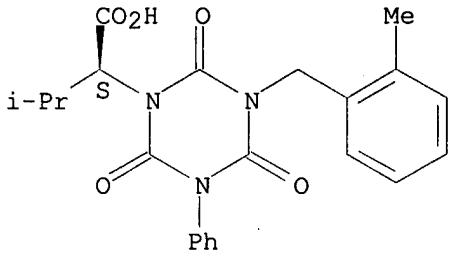
RN 457884-96-7 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-.alpha.-(1-methylethyl)-2,4,6-trioxo-3-phenyl-5-(phenylmethyl)-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



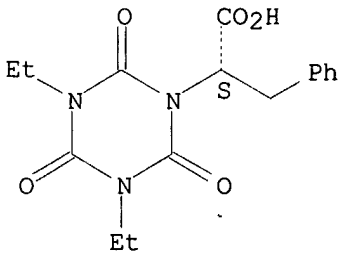
RN 457884-97-8 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-.alpha.-(1-methylethyl)-3-[(2-methylphenyl)methyl]-2,4,6-trioxo-5-phenyl-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



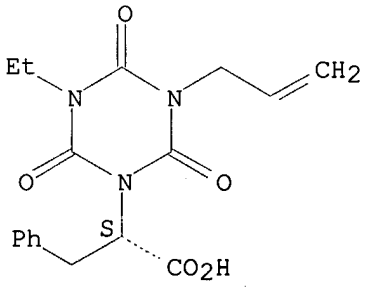
RN 457884-98-9 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3,5-diethyltetrahydro-2,4,6-trioxo-.alpha.-(phenylmethyl)-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



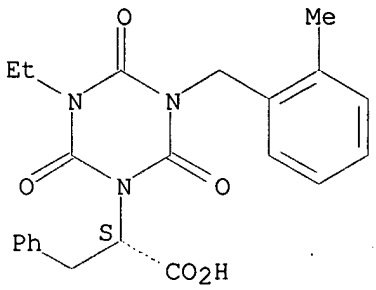
RN 457884-99-0 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-ethyltetrahydro-2,4,6-trioxo-.alpha.-(phenylmethyl)-5-(2-propenyl)-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



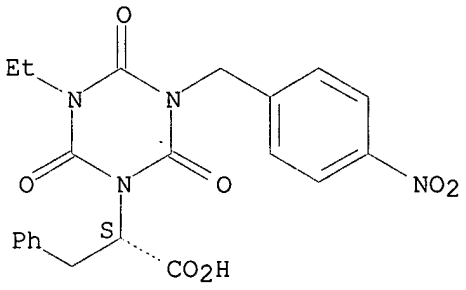
RN 457885-00-6 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-ethyltetrahydro-5-[(2-methylphenyl)methyl]-2,4,6-trioxo-.alpha.-(phenylmethyl)-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



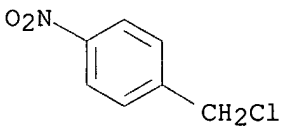
RN 457885-01-7 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-ethyltetrahydro-5-[(4-nitrophenyl)methyl]-2,4,6-trioxo-.alpha.-(phenylmethyl)-, (.alpha.S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

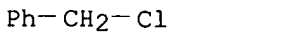


IT **100-14-1**, 4-Nitrobenzyl chloride **100-44-7**, Benzyl chloride, reactions **103-71-9**, reactions **104-12-1** **107-05-1**, Allyl chloride **109-90-0** **552-45-4**, 2-Methylbenzyl chloride **589-17-3**, 4-Bromobenzyl chloride **622-58-2** **4530-20-5** **5416-93-3** **15761-38-3** **35661-40-6** **68858-20-8**
RL: CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); RACT (Reactant or reagent)
(solid-phase synthesis of substituted **1,3,5-triazine-2,4,6-triones**)

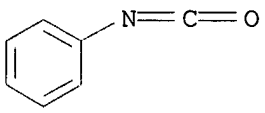
RN 100-14-1 HCAPLUS
CN Benzene, 1-(chloromethyl)-4-nitro- (9CI) (CA INDEX NAME)



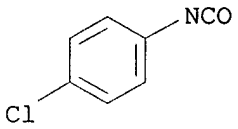
RN 100-44-7 HCAPLUS
CN Benzene, (chloromethyl)- (9CI) (CA INDEX NAME)



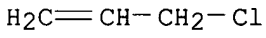
RN 103-71-9 HCAPLUS
CN Benzene, isocyanato- (9CI) (CA INDEX NAME)



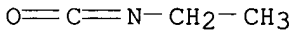
RN 104-12-1 HCAPLUS
CN Benzene, 1-chloro-4-isocyanato- (9CI) (CA INDEX NAME)



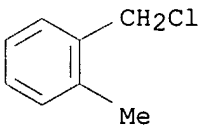
RN 107-05-1 HCAPLUS
CN 1-Propene, 3-chloro- (9CI) (CA INDEX NAME)



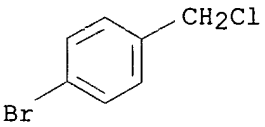
RN 109-90-0 HCAPLUS
CN Ethane, isocyanato- (9CI) (CA INDEX NAME)



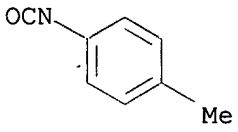
RN 552-45-4 HCAPLUS
CN Benzene, 1-(chloromethyl)-2-methyl- (9CI) (CA INDEX NAME)



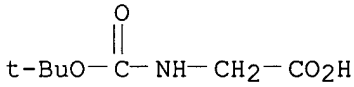
RN 589-17-3 HCAPLUS
CN Benzene, 1-bromo-4-(chloromethyl)- (9CI) (CA INDEX NAME)



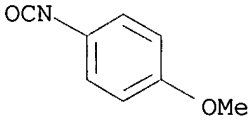
RN 622-58-2 HCAPLUS
CN Benzene, 1-isocyanato-4-methyl- (9CI) (CA INDEX NAME)



RN 4530-20-5 HCAPLUS
CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]- (9CI) (CA INDEX NAME)

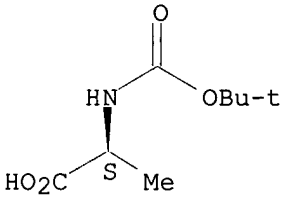


RN 5416-93-3 HCAPLUS
CN Benzene, 1-isocyanato-4-methoxy- (9CI) (CA INDEX NAME)



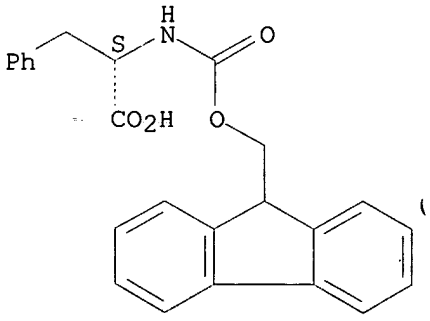
RN 15761-38-3 HCAPLUS
CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



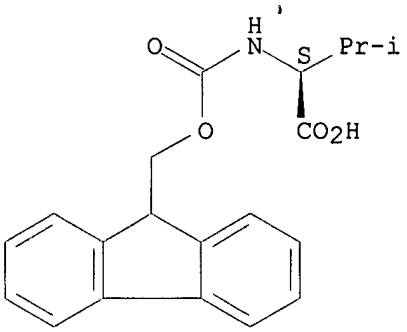
RN 35661-40-6 HCAPLUS
CN L-Phenylalanine, N-[(9H-fluoren-9-ylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 68858-20-8 HCAPLUS
CN L-Valine, N-[(9H-fluoren-9-ylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))
ST solid phase synthesis **triazinetrione**
IT Combinatorial library
Solid phase synthesis
(solid-phase synthesis of substituted **1,3,5-triazine-2,4,6-triones**)
IT **13734-34-4P 457884-80-9P 457884-81-0P 457884-82-1P 457884-83-2P 457884-84-3P 457884-85-4P 457884-86-5P 457884-87-6P 457884-88-7P 457884-89-8P 457884-90-1P 457884-91-2P 457884-92-3P 457884-93-4P 457884-94-5P 457884-95-6P 457884-96-7P 457884-97-8P 457884-98-9P 457884-99-0P 457885-00-6P 457885-01-7P**
RL: CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP (Preparation)
(solid-phase synthesis of substituted **1,3,5-triazine-2,4,6-triones**)
IT **100-14-1**, 4-Nitrobenzyl chloride **100-44-7**, Benzyl chloride, reactions **103-71-9**, reactions **104-12-1 107-05-1**, Allyl chloride **109-90-0 552-45-4**, 2-Methylbenzyl chloride **589-17-3**, 4-Bromobenzyl chloride **622-58-2 4530-20-5 5416-93-3 15761-38-3 35661-40-6 68858-20-8**
RL: CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); RACT (Reactant or reagent)
(solid-phase synthesis of substituted **1,3,5-triazine-2,4,6-triones**)
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Beilstein Search

EPPERSON 10/071,707

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L31             STR
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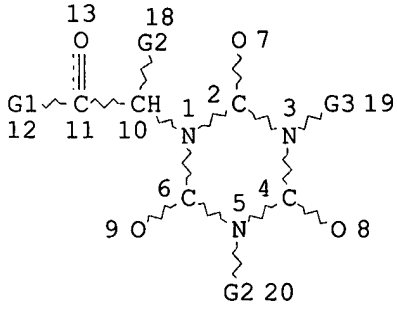

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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS  19

STEREO ATTRIBUTES: NONE
L44           4 SEA FILE=BEILSTEIN SSS FUL L31
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4 compounds

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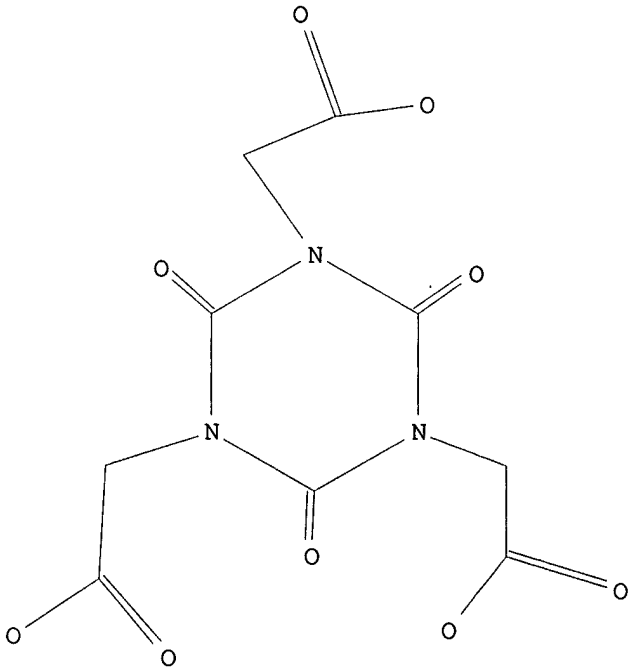
L44 ANSWER 1 OF 4 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	900309
Beilstein Pref. RN (BPR):	1968-52-1
CAS Reg. No. (RN):	1968-52-1
Chemical Name (CN):	2,2',2''-(2,4,6-trioxo-<1,3,5>triazinane-1,3,5-triyl)-tris-acetic acid
Autonom Name (AUN):	(3,5-bis-carboxymethyl-2,4,6-trioxo-<1,3,5>triazinan-1-yl)-acetic acid
Molec. Formula (MF):	C9 H9 N3 O9
Molecular Weight (MW):	303.18
Lawson Number (LN):	30154, 3379
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	916533
Tautomer ID (TAUTID):	941964
Beilstein Citation (BSO):	5-26
Entry Date (DED):	1988/11/28
Update Date (DUPD):	1991/10/16



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1

CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
MP	Melting Point	2

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

=> d rx

L44 ANSWER 1 OF 4 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Reaction:
RX

Reaction ID (.ID):	6182663
Product BRN (.PBRN):	900309
Product (.PRO):	2,2',2''-(2,4,6-trioxo-<1,3,5>triazinane-1,3,5-triyl)-tris-acetic acid
No. of React. Details (.NVAR):	1

Reaction Details:
RX

Reaction RID (.RID):	6182663.1
Reaction Classification (.CL):	Preparation (half reaction)

Reference(s):
1. Patent: Spencer Chem. Co. GB 988631 1961, Chem.Abstr., 63(620b), <1965>
2. Airapetyan et al., Arm.Khim.Zh., CODEN: AYKZAN, 32, <1979>, 901,903, Chem.Abstr., 92(215401s), <1980>
3. Patent: Gulf Oil Corp. US 3230220 1961, Chem.Abstr., 64(9750a), <1966>

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      4 ANSWERS ARE AVAILABLE.  SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):2
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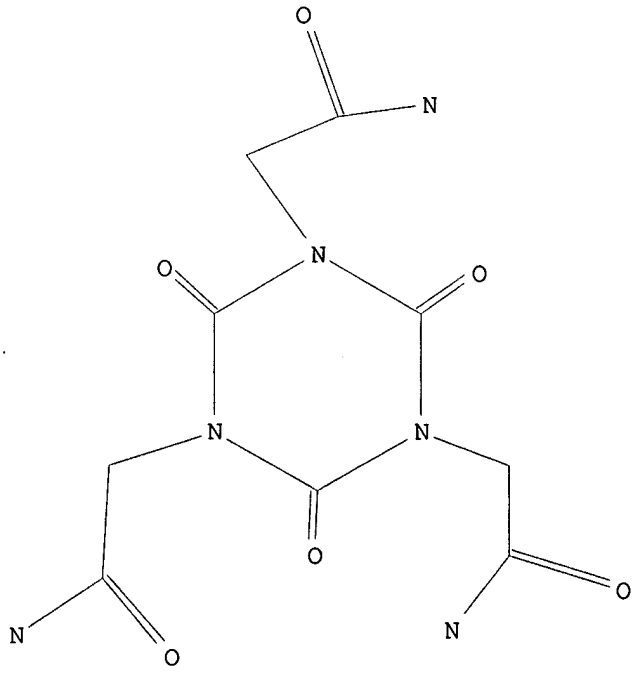
L44 ANSWER 2 OF 4 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	900308
Beilstein Pref. RN (BPR):	1843-48-7
CAS Reg. No. (RN):	1843-48-7
Chemical Name (CN):	2,2',2''-(2,4,6-trioxo-<1,3,5>triazinane-1,3,5-triyl)-tris-acetamide
Autonom Name (AUN):	2-(3,5-bis-carbamoylmethyl-2,4,6-trioxo-<1,3,5>triazinan-1-yl)-acetamide
Molec. Formula (MF):	C9 H12 N6 O6
Molecular Weight (MW):	300.23
Lawson Number (LN):	30154, 3379
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	919322
Tautomer ID (TAUTID):	941945
Beilstein Citation (BSO):	5-26
Entry Date (DED):	1988/11/28
Update Date (DUPD):	1992/09/03



Field Availability:

Code	Name	Occurrence
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BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
MP	Melting Point	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

=> d rx 2

L44 ANSWER 2 OF 4 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Reaction:
RX

Reaction ID (.ID):	6182662
Product BRN (.PBRN):	900308
Product (.PRO):	2,2',2''-(2,4,6-trioxo-<1,3,5>triazinane-1,3,5-triyl)-tris-acetamide
No. of React. Details (.NVAR):	1

Reaction Details:
RX

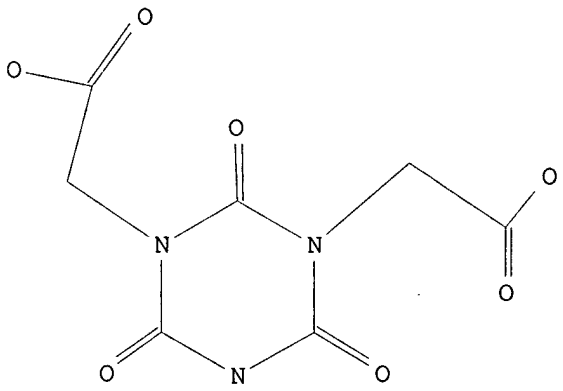
Reaction RID (.RID):	6182662.1
Reaction Classification (.CL):	Preparation (half reaction)

Reference(s):
1. Patent: Spencer Chem. Co. GB 988631 1961, Chem.Abstr., 63(620a), <1965>
2. Patent: Gulf Oil Corp. US 3230220 1961, Chem.Abstr., 64(9750a), <1966>

=> d l44 3

L44 ANSWER 3 OF 4 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	824220
Beilstein Pref. RN (BPR):	49581-26-2
CAS Reg. No. (RN):	49581-26-2
Chemical Name (CN):	2,2'-(2,4,6-trioxo-<1,3,5>triazinane-1,3-diyl)-bis-acetic acid
Autonom Name (AUN):	(3-carboxymethyl-2,4,6-trioxo-<1,3,5>triazinan-1-yl)-acetic acid
Molec. Formula (MF):	C7 H7 N3 O7
Molecular Weight (MW):	245.15
Lawson Number (LN):	30154, 3379
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	784947
Tautomer ID (TAUTID):	836723
Beilstein Citation (BSO):	5-26
Entry Date (DED):	1988/11/28
Update Date (DUPD):	1992/01/31



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1

MP	Melting Point	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

=> d 3 rx

L44 ANSWER 3 OF 4 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Reaction:
RX

Reaction ID (.ID):	6116879
Product BRN (.PBRN):	824220
Product (.PRO):	2,2'-(2,4,6-trioxo-<1,3,5>triazinane-1,3-diyl)-bis-acetic acid
No. of React. Details (.NVAR):	1

Reaction Details:
RX

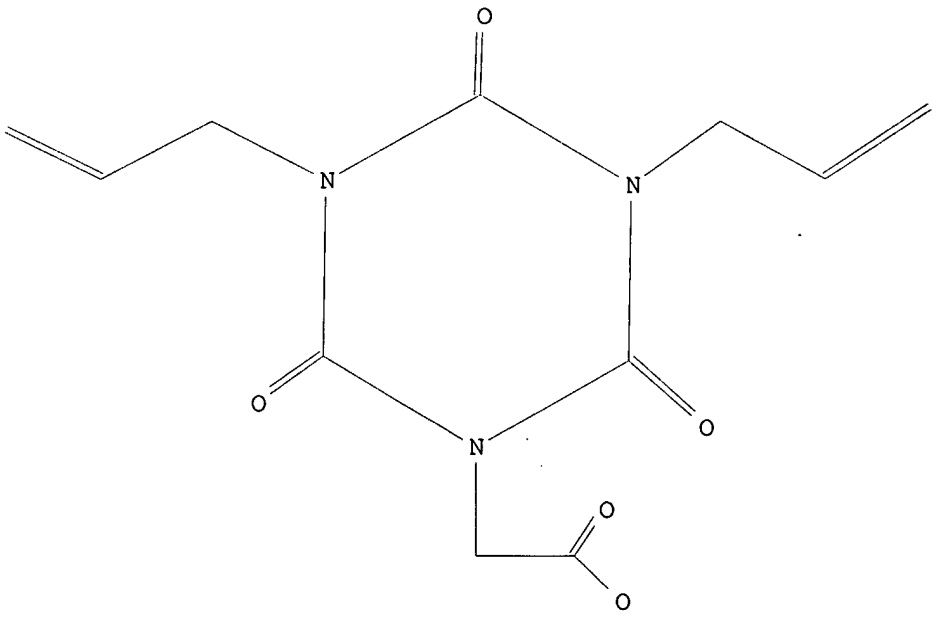
Reaction RID (.RID):	6116879.1
Reaction Classification (.CL):	Preparation (half reaction)

Reference(s):
1. Khomenkova et al., Sov.Prog.Chem.(Engl.Transl.), CODEN: SPCHBV, 39(5), <1973>, 59, Ukr.Khim.Zh.(Russ.Ed.), CODEN: UKZHAU, 39(5), <1973>, 476

=> d 4

L44 ANSWER 4 OF 4 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Beilstein Records (BRN):	819851
Beilstein Pref. RN (BPR):	13915-42-9
CAS Reg. No. (RN):	13915-42-9
Chemical Name (CN):	(3,5-diallyl-2,4,6-trioxo-<1,3,5>triazinan-1-yl)-acetic acid
Autonom Name (AUN):	(3,5-diallyl-2,4,6-trioxo-<1,3,5>triazinan-1-yl)-acetic acid
Molec. Formula (MF):	C11 H13 N3 O5
Molecular Weight (MW):	267.24
Lawson Number (LN):	30154, 3379, 2947
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	793650
Tautomer ID (TAUTID):	801213
Beilstein Citation (BSO):	5-26
Entry Date (DED):	1988/11/28
Update Date (DUPD):	1991/10/16



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1

AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1
UPD	Update Date	1
MP	Melting Point	1
SLB	Solubility (MCS)	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

=> d 4 rx

L44 ANSWER 4 OF 4 BEILSTEIN COPYRIGHT 2003 BEILSTEIN CDS MDL

Reaction:
RX

Reaction ID (.ID):	6113175
Product BRN (.PBRN):	819851
Product (.PRO):	(3,5-diallyl-2,4,6-trioxo-<1,3,5>triazinan-1-yl)-acetic acid
No. of React. Details (.NVAR):	1

Reaction Details:
RX

Reaction RID (.RID):	6113175.1
Reaction Classification (.CL):	Preparation (half reaction)

Reference(s):
1. Balizkaja et al., J.Org.Chem.USSR (Engl.Transl.), CODEN: JOCYA9, 2, <1966>, 1409, Zh.Org.Khim., CODEN: ZORKAE, 2, <1966>, 1421

Reg/HCAPLUS files search

EPPERSON 10/071,707

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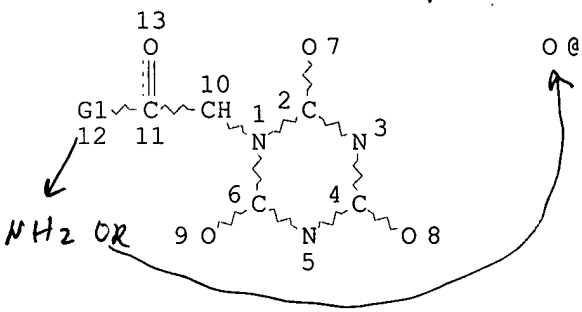
=> d que l36
L1          107 SEA FILE=HCAPLUS ABB=ON  PLU=ON  OSTRESH J?/AU
L2         5423 SEA FILE=HCAPLUS ABB=ON  PLU=ON  YU Y?/AU
L3         1022 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HOUGHTEN R?/AU
L4         6440 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3)
L5           19 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 AND ?TRIAZIN?
L6            5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND "1,3,5-TRIAZINE"
L7            5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND "1,3,5-TRIAZINO"
L8            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L6 OR L7)
L9            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8 AND "2,4,6-TRIONES"
L25             STR
```

Inventor search

1 citation

parent STR



can be OH or O-metal

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VAR G1=NH2/14
NODE ATTRIBUTES:
CONNECT IS E1  RC AT  14
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  14

STEREO ATTRIBUTES: NONE
L27           54 SEA FILE=REGISTRY SSS FUL L25
L31              STR
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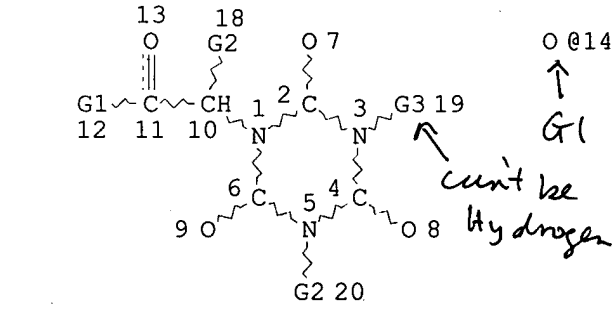
54 cpds from parent STR search

subset STR



G1

aryl or carbocyclic

any alkyl

can't be Hydrogen

Cb or Ak can be substituted

i.e. Ak-Cb

+N

```
VAR G1=NH2/14
VAR G2=H/15/17
VAR G3=17/15
NODE ATTRIBUTES:
CONNECT IS E1  RC AT  14
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  19
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STEREO ATTRIBUTES: NONE
L33 53 SEA FILE=REGISTRY SUB=L27 SSS FUL L31 53 cpds for subset searching
L35 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L33 29 cites from 53 cpds
L36 28 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 NOT L9 28 cites after subtracting out applicants' work, L9

=> d ibib abs hitstr l36 1-28

L36 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:214787 HCAPLUS
DOCUMENT NUMBER: 138:222740
TITLE: Heat-resistant crosslinked polyester moldings with low mold shrinkage for electric parts
INVENTOR(S): Nishikawa, Shinya; Hayami, Hiroshi
PATENT ASSIGNEE(S): Sumitomo Electric Industries, Ltd., Japan; Sumitomo Electric Fine Polymer, Inc.
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003082132	A2	20030319	JP 2001-272972	20010910

PRIORITY APPLN. INFO.: JP 2001-272972 20010910

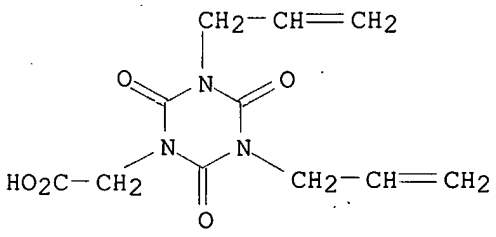
AB The molding is obtained by melt molding a compn. comprising (A) 100 parts thermoplastic polyester having repeating units contg. (1) a terephalic acid-based arom. dicarboxylic acid, (2) an ethylene glycol-based aliph. diol and (3) a cyclhexanedimethanol-based alicyclic diol, with a mol ratio of (2)/(3) 80/20-20/80, (B) 0.1-20 parts multifunctional monomer contg. triallyl cyanurate; and exposuring to ionizing radiation. Thus, 100 parts Eastargn 071 (phthalic acid-ethylene glycol-cyclohexanedimethanol copolymer) was mixed with triallyl cyanurate 5 and Irganox 1010 0.5 parts, injection molded and irradiated by electron beam to give a molding showing shrinkage in longitudinal direction 2.0% and in transverse direction 0.8% and storage elasticity (260.degree.) 4 x 105 Pa.

IT **501131-19-7P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; heat-resistant crosslinked polyester moldings with low mold shrinkage for elec. parts)

RN 501131-19-7 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,4-cyclohexanedimethanol, 1,2-ethanediol and tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl-1,3,5-triazine-1(2H)-acetic acid (9CI) (CA INDEX NAME)

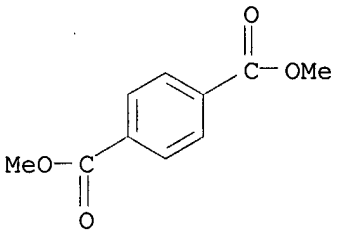
CM 1

CRN 13915-42-9
CMF C11 H13 N3 O5



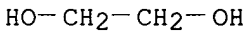
CM 2

CRN 120-61-6
CMF C10 H10 O4



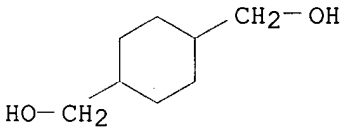
CM 3

CRN 107-21-1
CMF C2 H6 O2

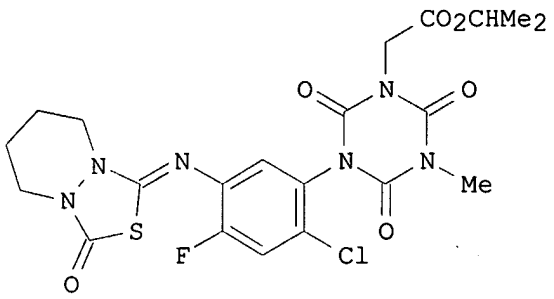


CM 4

CRN 105-08-8
CMF C8 H16 O2



L36 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:915240 HCAPLUS
DOCUMENT NUMBER: 136:195583
TITLE: 3-(Heterocyclyl)phenyl cyanurates: synthesis and herbicidal activity
AUTHOR(S): Karp, Gary M.; Crews, A. Don; Manfredi, Mark C.; Kleemann, Axel; Arotin, Robert L.; Crawley, Matthew L.; Dahlke, Brian; Baerg, Roger
CORPORATE SOURCE: BASF Agro Research, Princeton, NJ, 08543-0400, USA
SOURCE: ACS Symposium Series (2002), 800(Synthesis and Chemistry of Agrochemicals VI), 30-40
CODEN: ACSMC8; ISSN: 0097-6156
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:195583
GI



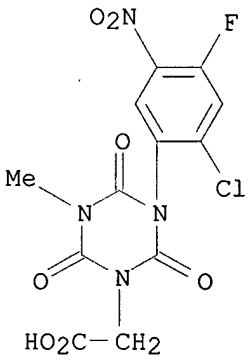
I

AB 3-(Heterocyclyl)phenyl cyanurates such as I make up a novel class of protoporphyrinogen oxidase (protox) inhibitors which were prepd. and evaluated for herbicidal activity. The compds. were primarily postemergence broadleaf compds. The effect of changes in the aryl moiety, the heteroaryl moiety, and in the pendant ester of the cyanurate moiety on the herbicidal activity of the heterocyclylaryl cyanurates was studied.

IT **185382-84-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and herbicidal activity of (heterocyclyl)phenyl cyanurate protoporphyrinogen oxidase inhibitors)

RN 185382-84-7 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, 3-(2-chloro-4-fluoro-5-nitrophenyl)tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

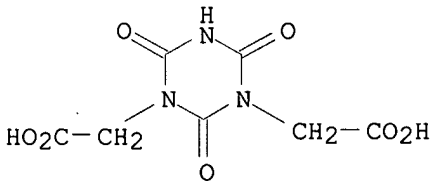
L36 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:260563 HCAPLUS
DOCUMENT NUMBER: 135:211623
TITLE: Preparation of polyamides and methylolated polyamides containing hexahydro-s-triazine and isocyanurate rings
AUTHOR(S): Pogosyan, G. M.; Danielyan, R. Dzh.; Oganesyan, D. N.
CORPORATE SOURCE: Inst. Org. Khim., NAN Resp. Armeniya, Yerevan, Armenia
SOURCE: Khimicheskii Zhurnal Armenii (2000), 53(3-4), 104-110
CODEN: KZARF3; ISSN: 1561-4190
PUBLISHER: Izdatel'stvo Gitutyun NAN Respubliki Armenii
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The polyamides and methylolated polyamides contg. hexahydro-s-triazine and

isocyanurate rings were prepd. and some properties characterized. 1,3,5-(P-Carboxyphenyl)hexahydro-s-triazine was prepd. by condensation of HCHO with p-H2NC6H4CO2H and the product acid chlorinated with SOCl2 to give 1,3,5-tris(p-chlorocarbonylphenyl)hexahydro-s-triazine. Interphase polycondensation of the latter compd. with 1,6-hexamethylenediamine (HMDA) gave polyamide I. 1,3-Di(carboxymethyl)isocyanurate was prepd. by condensation of disodium isocyanurate with ClCH2CO2Et and subsequent hydrolysis. The resulting intermediate was converted to acid chloride and polymd. with HMDA using interphase polycondensation method to give polyamide II. The polyamides I and II were methylolated with paraformaldehyde in Me2CHOH, in the presence of HCO2H.

IT **49581-26-2P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and acid chlorination; prepn. of polyamides and methylolated polyamides contg. hexahydro-s-triazine and isocyanurate rings)

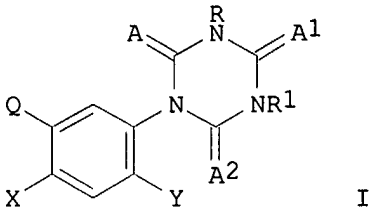
RN 49581-26-2 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo- (9CI) (CA INDEX NAME)



L36 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:178149 HCAPLUS
DOCUMENT NUMBER: 128:217387
TITLE: Preparation of 1-(3-heterocyclyphenyl)-s-triazine-2,4,6-triones and related compounds as herbicides.
INVENTOR(S): Crews, Alvin Donald, Jr.; Harrington, Philip Mark; Karp, Gary Mitchell; Manfredi, Mark Christopher; Guaciaro, Michael Anthony
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: U.S., 69 pp., Cont.-in-part of U.S. Ser. No. 459,868.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5726126	A	19980310	US 1996-756750	19961126

PRIORITY APPLN. INFO.: US 1995-459868 A2 19950602
OTHER SOURCE(S): MARPAT 128:217387
GI



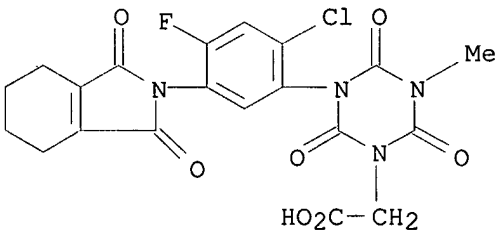
I

AB Title compds. [I; X, Y = H, halo, NO2, cyano, alkyl, haloalkyl, alkoxy, haloalkoxy, SOmR2; m = 0-2; R = H, alkyl, alkoxyalkyl, alkylcarbonylalkyl, haloalkylcarbonyl, alkoxycarbonylalkyl, alkynyl, alkali metal, (substituted) Ph, PhCH2; R1 = H, alkenyl, alkynyl, cyano, (substituted) alkyl, Ph; R2 = alkyl, haloalkyl, (substituted) Ph, PhCH2; A, A1, A2 = O, S; Q = specified heterocyclyl], were prepd. Thus, 1-(5-amino-2-chloro-4-fluorophenyl)-3-methyl-s-triazine-2,4,6(1H,3H,5H)-trione was heated with 3,4,5,6-tetrahydrophthalic anhydride in HOAc at 100.degree. for 8 h to give 1-[4-chloro-2-fluoro-5-(hexahydro-3-methyl-2,4,6-trioxo-s-triazin-1-yl)phenyl]-1-cyclohexene-1,2-dicarboximide. Several I at 0.500 kg/ha postemergent gave 100% control of Abutilon theophrasti and Ambrosia artemisifolia.

IT **185382-54-1P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1-(3-heterocyclyphenyl)-s-triazine-2,4,6-triones and related compds. as herbicides)

RN 185382-54-1 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-chloro-4-fluoro-5-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)phenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



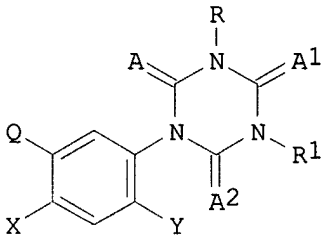
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:31166 HCAPLUS
DOCUMENT NUMBER: 128:102104
TITLE: Preparation of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-tri(thi)ones as herbicides.
INVENTOR(S): Crews, Alvin Donald, Jr.; Harrington, Philip Mark; Karp, Gary Mitchell; Manfredi, Mark Christopher; Guaciaro, Michael Anthony
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: U.S., 50 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5705644	A	19980106	US 1996-690270	19960724
US 5872253	A	19990216	US 1997-896254	19970717

PRIORITY APPLN. INFO.: US 1995-459567 A3 19950602
US 1996-690270 A3 19960724
OTHER SOURCE(S): MARPAT 128:102104
GI



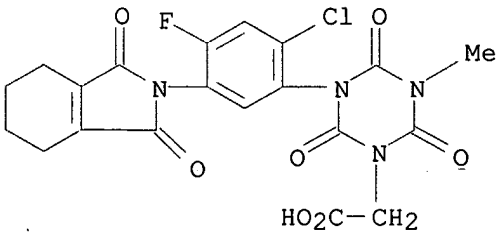
I

AB Title compds. [I; X, Y = H, halo, NO2, cyano, alkyl, haloalkyl, alkoxy, haloalkoxy, etc.; Q = specified 5-6 membered heterocyclyl; R = H, alkyl, alkoxyalkyl, alkylcarbonylalkyl, alkenyl, alkynyl, alkali metal, (substituted) Ph, PhCH2; R1 = H, alkenyl, alkynyl, cyano, (substituted) alkyl, Ph; A, A1, A2 = O, S], were prepd. Thus, Me 3-[2-chloro-5-(1-cyclohexene-1,2-dicarboximido)-4-fluorophenyl]tetrahydro-5-methyl-2,4,6-trioxo-s-triazine-1(2H)-acetate (prepn. given) at 0.125 kg/ha postemergent gave 100% control of Abutilon theophrasti.

IT **185382-54-1P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-tri(thi)ones as herbicides)

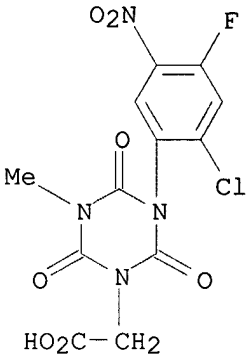
RN 185382-54-1 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-chloro-4-fluoro-5-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)phenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



IT **185382-84-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-tri(thi)ones as herbicides)
RN 185382-84-7 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-(2-chloro-4-fluoro-5-nitrophenyl)tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)

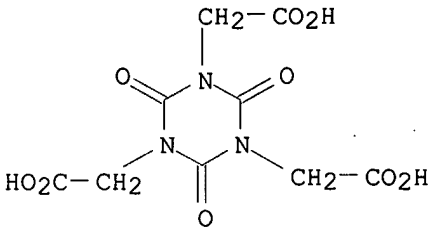


REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:731820 HCAPLUS
DOCUMENT NUMBER: 128:6324
TITLE: Water-soluble rust inhibitor
INVENTOR(S): Fuchigami, Masaharu
PATENT ASSIGNEE(S): Yushiro Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09291381	A2	19971111	JP 1996-129106	19960424

PRIORITY APPLN. INFO.: JP 1996-129106 19960424
AB The rust inhibitor contains condensation products of urea or its derivs. and salts of alkali metals, alkali earth metals, and amines. The condensation product of urea is selected from cyanuric acid isocyanuric acid, hydantoic acid, and alantoin, and that of urea derivs. from tris(carboxymethyl) cyanuric acid, tris(carboxyethyl) cyanuric acid, tris(carboxymethy) isocyanuric acid, and tris(carboxyethyl) isocyanuric acid.
IT **1968-52-1**
RL: TEM (Technical or engineered material use); USES (Uses)
(water-sol. rust inhibitor)
RN 1968-52-1 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo- (9CI) (CA INDEX NAME)



L36 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:689564 HCAPLUS
DOCUMENT NUMBER: 127:358879
TITLE: Preparation of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo- or -thiotrione herbicidal agents
INVENTOR(S): Crews, Alvin Donald, Jr.; Karp, Gary Mitchell; Manfredi, Mark Christopher; Guaciaro, Michael Anthony
PATENT ASSIGNEE(S): American Cyanamid Company, USA
SOURCE: U.S., 49 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5679791	A	19971021	US 1996-686288	19960725

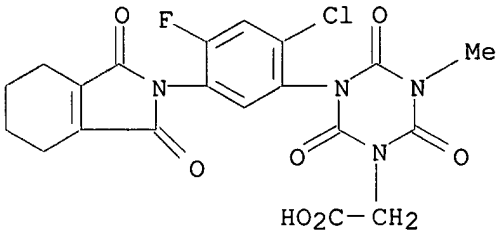
PRIORITY APPLN. INFO.: US 1996-686288 19960725
OTHER SOURCE(S): CASREACT 127:358879; MARPAT 127:358879
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

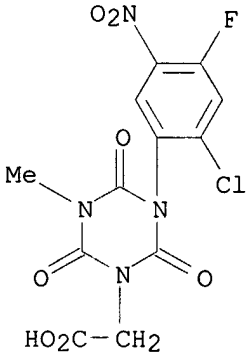
AB The title compds. [I; R = H, C1-6 alkyl, C2-12 alkoxyalkyl, etc.; R1 = H, C3-6 alkenyl, C3-6 alkynyl, etc.; R11, R12 = H, (un)substituted C1-6 alkyl, C3-6 cycloalkyl; R11R12 = (un)substituted 4-7 membered (un)satd. ring optionally interrupted by O, S(O)r, or N; A, A1, A2 = O, S; r = 0-2; X, Y = H, halo, NO2, CN], useful for the control of undesirable plant species, were prepd. by reacting an isothiocyanate II with a hydrazine R12NHNHR11 followed by reaction of the resulting intermediate III with phosgene or a phosgene equiv. in the presence of a base. Thus, the title compd. IV showed 100% efficacy against, e.g., common lambsquarters in preemergence test at 0.125 kg/ha.

IT **185382-54-1P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo- or -thiotrione herbicidal agents)

RN 185382-54-1 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-chloro-4-fluoro-5-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)phenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



IT **185382-84-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo- or -thiotrione herbicidal agents)
RN 185382-84-7 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-(2-chloro-4-fluoro-5-nitrophenyl)tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



L36 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:72137 HCAPLUS
DOCUMENT NUMBER: 126:104106
TITLE: Preparation of 3-(3-aryloxyphenyl)-2,4,6-tri(thi)oxo-s-triazine-1-alkanoates as herbicides
INVENTOR(S): Crews, Alvin Donald, Jr.; Harrington, Philip Mark; Karp, Gary Mitchell; Gill, Simon David; Dieterich, Petra
PATENT ASSIGNEE(S): American Cyanamid Company, USA
SOURCE: Eur. Pat. Appl., 141 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 745595	A1	19961204	EP 1996-303970	19960531
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 5519133	A	19960521	US 1995-458336	19950602
US 5604180	A	19970218	US 1995-458635	19950602

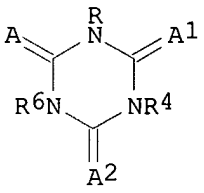
US 5654256	A	19970805	US 1995-459439	19950602
US 5670641	A	19970923	US 1995-459562	19950602
US 5763605	A	19980609	US 1995-459155	19950602
ZA 9604440	A	19971209	ZA 1996-4440	19960530
US 5883282	A	19990316	US 1997-859188	19970520

PRIORITY APPLN. INFO.:

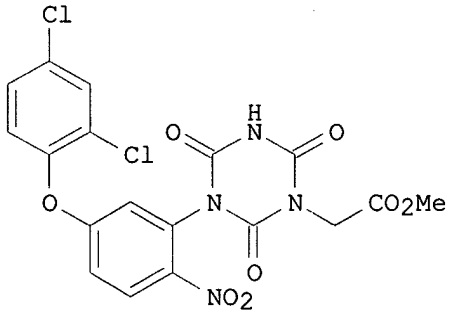
US 1995-458336	A	19950602
US 1995-458635	A	19950602
US 1995-459155	A	19950602
US 1995-459439	A	19950602
US 1995-459562	A	19950602

OTHER SOURCE(S): MARPAT 126:104106

GI



I



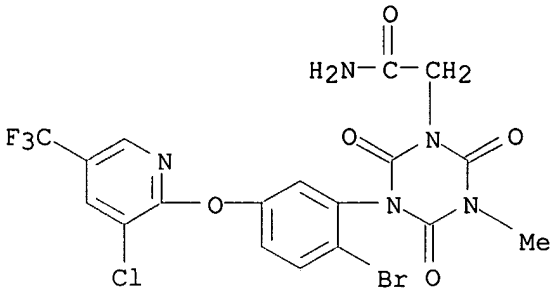
II

AB Title compds. [I; A,A1,A2 = O or S; R = H, alkyl, Ph, etc.; R4 = CR1R2(CHR3)nR5; R1 = H, alkyl, Ph, etc.; R2,R3 = H or alkyl; R1R2 = (CH2)2-5; R5 = CO2H, alkoxycarbonyl, alkanoyloxymethyl, etc.; R6 = ZOR7; R7 = (un)substituted Ph, -2-pyridyl, -2-pyrimidinyl, etc.; Z = (un)substituted 1,3-phenylene; n = 0-2] were prepd. Thus, 2,5-F(O2N)C6H3NHCONHCH2CO2Me was cyclocondensed with ClCONCO and the product etherified by 2,4-Cl2C6H3OH to give title compd. II. Data for biol. activity of I were given.

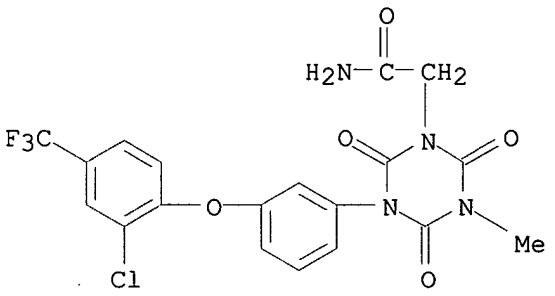
IT **179028-22-9P 179028-25-2P 185627-70-7P 185627-74-1P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 3-(3-aryloxyphenyl)-2,4,6-tri(thi)oxo-s-triazine-1-alkanoates as herbicides)

RN 179028-22-9 HCAPLUS

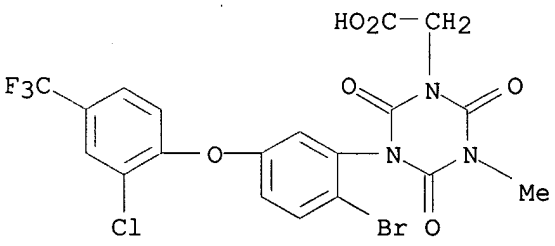
CN 1,3,5-Triazine-1(2H)-acetamide, 3-[2-bromo-5-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]oxy]phenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



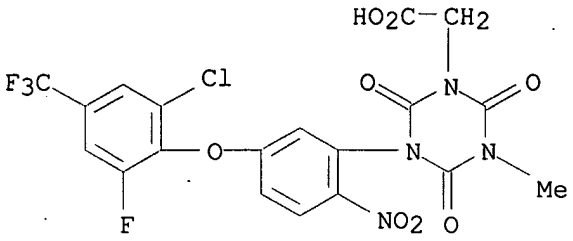
RN 179028-25-2 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetamide, 3-[3-[2-chloro-4-(trifluoromethyl)phenoxy]phenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



RN 185627-70-7 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-bromo-5-[2-chloro-4-(trifluoromethyl)phenoxy]phenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



RN 185627-74-1 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)

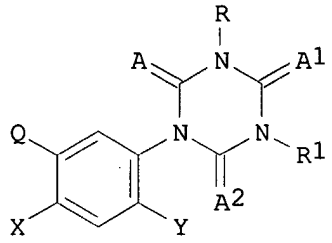


L36 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:53895 HCAPLUS
DOCUMENT NUMBER: 126:74873
TITLE: Preparation of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo(or thio)trione as herbicidal agents
INVENTOR(S): Crews, Alvin Donald, Jr.; Harrington, Philip Mark; Karp, Gary Mitchell; Manfredi, Mark Christopher; Guaciaro, Michael Anthony
PATENT ASSIGNEE(S): American Cyanamid Company, USA
SOURCE: Eur. Pat. Appl., 155 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

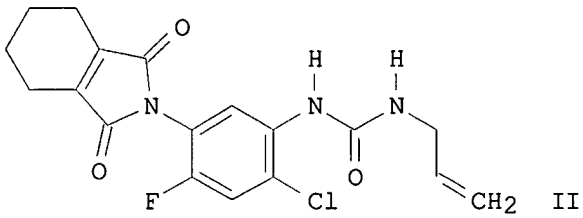
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 745599	A2	19961204	EP 1996-303836	19960529
EP 745599	A3	19970305		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 5610120	A	19970311	US 1995-458639	19950602
US 5612481	A	19970318	US 1995-459567	19950602
US 5616706	A	19970401	US 1995-458211	19950602
US 5659031	A	19970819	US 1995-458324	19950602
JP 09025270	A2	19970128	JP 1996-156315	19960529
AU 9654603	A1	19961212	AU 1996-54603	19960530
AU 725805	B2	20001019		
ZA 9604442	A	19971209	ZA 1996-4442	19960530
CA 2177876	AA	19961203	CA 1996-2177876	19960531
CN 1138580	A	19961225	CN 1996-105323	19960531
BR 9602563	A	19981006	BR 1996-2563	19960531

PRIORITY APPLN. INFO.:
US 1995-458211 A 19950602
US 1995-458324 A 19950602
US 1995-458639 A 19950602
US 1995-458920 A 19950602
US 1995-459567 A 19950602
US 1995-459868 A 19950602
US 1995-459919 A 19950602
US 1995-459950 A 19950602

OTHER SOURCE(S): CASREACT 126:74873; MARPAT 126:74873
GI



I



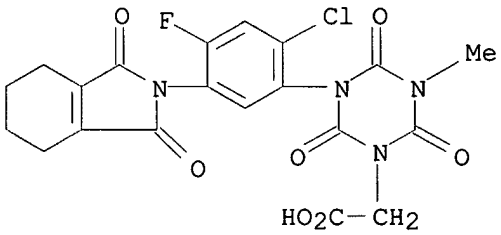
II

AB The title compds. [I; X, Y = H, halo, NO2, etc.; R = H, C1-6 alkyl, C2-12 alkoxyalkyl, etc.; R1 = H, C3-6 alkenyl, C3-6 alkynyl, etc.; Q = heterocyclyl; A, A1, A2 = O, S], useful for the control of undesirable plant species, were prepd. Thus, cyclization of urea II with N-(chlorocarbonyl)isocyanate in PhMe afforded I [X = F; Y = Cl; R = H; R1 = CH2CH:CH2; Q = 1-cyclohexene-1,2-dicarboximido; A = A1 = A2 = O] which showed 91-99% control of Galium Aparine and Chenopodium Album, L. in postemergence herbicidal evaluation at 0.500 kg/ha.

IT **185382-54-1P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo(or thio)trione as herbicidal agents)

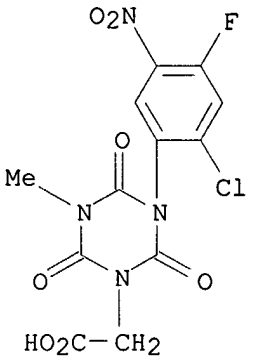
RN 185382-54-1 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-chloro-4-fluoro-5-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)phenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



IT **185382-84-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo(or thio)trione as herbicidal agents)

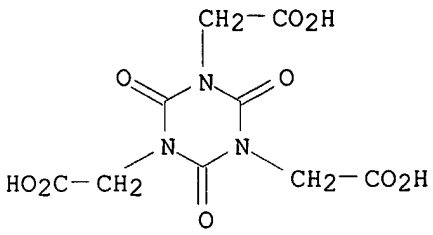
RN 185382-84-7 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-(2-chloro-4-fluoro-5-nitrophenyl)tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



L36 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:391589 HCAPLUS
DOCUMENT NUMBER: 125:59986
TITLE: Novel epoxy compounds with triazine ring skeleton and their manufacture
INVENTOR(S): Myake, Satoshi; Ikeda, Hisao; Hidaka, Motohiko; Moro, Takeo
PATENT ASSIGNEE(S): Nissan Chemical Ind Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08081461	A2	19960326	JP 1994-217042	19940912
JP 3368680	B2	20030120		

PRIORITY APPLN. INFO.: JP 1994-217042 19940912
OTHER SOURCE(S): MARPAT 125:59986
AB The epoxy compds. with good workability, giving resins with good weather and heat resistance are manufd. by addn. reaction of tri(carboxyalkyl)isocyanurates with epihalohydrins and treating the resulting esters with an alkali substance. Refluxing tri(carboxymethyl)isocyanurate 101, .alpha.-epichlorohydrin 625, and Me4N+ Cl-3 g at 100.degree. and adding 120 g 50% NaOH over 3 h while removing the formed water and unreacted reactant gave tri(carboxymethyl)isocyanurat e triglycidyl ester (I). I 100, Me humic anhydride 90.5, and DMP 30 3 parts gave a cured resin with glass temp. 195.degree..
IT **1968-52-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with epichlorohydrin; manuf. of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)
RN 1968-52-1 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo- (9CI) (CA INDEX NAME)



L36 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:366128 HCAPLUS
DOCUMENT NUMBER: 125:114718
TITLE: 3-(3-Aryloxyphenyl)-1-(substituted methyl)-s-triazine-2,4,6-trione or -thiotrione herbicidal agents
INVENTOR(S): Crews, Alvin D., Jr.; Harrington, Philip M.; Karp, Gary M.; Gill, Simon D.; Dieterich, Petra
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: U.S., 49 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5519133	A	19960521	US 1995-458336	19950602
JP 09132569	A2	19970520	JP 1996-154730	19960528
AU 9654604	A1	19961212	AU 1996-54604	19960530
AU 719116	B2	20000504		
CA 2177916	AA	19961203	CA 1996-2177916	19960531
EP 745595	A1	19961204	EP 1996-303970	19960531
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1148592	A	19970430	CN 1996-105400	19960531
RU 2159769	C2	20001127	RU 1996-110414	19960531

PRIORITY APPLN. INFO.:
US 1995-458336 A 19950602
US 1995-458635 A 19950602
US 1995-459155 A 19950602
US 1995-459439 A 19950602
US 1995-459562 A 19950602

OTHER SOURCE(S): CASREACT 125:114718; MARPAT 125:114718
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I wherein Ar is II-IV; M is CX4 or N; X1, X2, X3, X4 and Y1 are each independently, e.g., hydrogen, halogen, nitro, cyano; R4 is C1-4 alkyl; Y is H or halo; A, A1, A2 are each independently O or S; R is, e.g., H, C1-4 alkyl, C2-6 alkoxyalkyl; R1 is, e.g., hydrogen, C1-4 alkyl or Ph optionally substituted with one to three halogen; R2 is, e.g., hydrogen, C1-4 alkyl; or R1R2 may represent (CH2)p, p = 2, 3, 4, 5; R3 is hydrogen, C1-4 alkyl; n = 0, 1, 2; V is C(O)R6, C(W)R7, CH2OC(O)R8 or

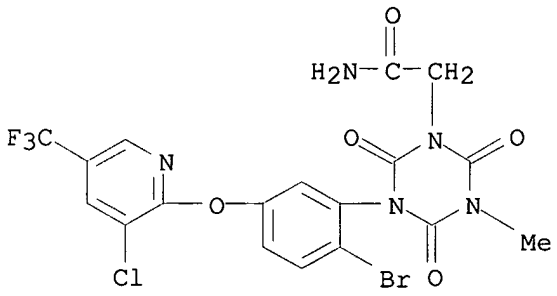
CH(OR9)2; R6 is OH, OR10, SR10 or NR11R12; W is O, NOR11, NCOR11 or NNHCONH2; R7 and R8 are each independently hydrogen or C1-4 alkyl; R9 is C1-4 alkyl; R10 is C1-6 alkyl optionally substituted with, e.g., C1-4 alkoxy, C1-4 alkylthio; R11 and R12 are each independently, e.g., hydrogen, C1-6 alkyl, C2-6 alkoxycarbonylalkyl are provided as herbicidal agents. Thus, e.g., 5-fluoro-2-nitrobenzoic acid was converted to the acid chloride and then to 5-fluoro-2-nitrobenzoyl azide; treatment of the latter with glycine Me ester hydrochloride afforded N-[(5-fluoro-2-nitrophenyl)carbamoyl]glycine Me ester which was cyclized with N-(chlorocarbonyl) isocyanate to afford trioxotriazine V; substitution with 2,4-dichlorophenol followed by methylation afforded VI which exhibited complete kill of, e.g., velvetleaf, sicklepod, and lambsquarters at 0.125 kg/ha postemergence. I were more effective herbicidal agents than prior-art 1,3,5-triazinones I with Ar = II, M = CX4, X = Cl, X1 = H; X2 = CF3, X3 = H; X4 = H, F; Y = H; Y1 = H, halo, NO2; the A's are O; R = Me; and the group CR1R2(CHR3)nV is replaced by H.

IT **179028-22-9P 179028-25-2P 179028-38-7P**

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(3-(3-aryloxyphenyl)-1-(substituted methyl)-s-triazine-2,4,6-trione or -thiotrione herbicidal agents)

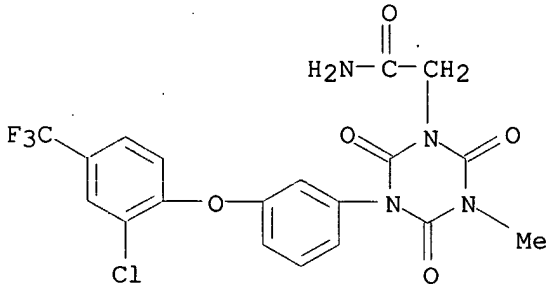
RN 179028-22-9 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetamide, 3-[2-bromo-5-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]oxy]phenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



RN 179028-25-2 HCAPLUS

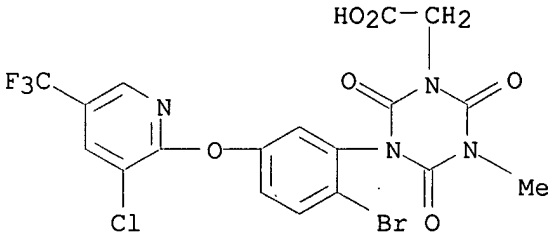
CN 1,3,5-Triazine-1(2H)-acetamide, 3-[3-[2-chloro-4-(trifluoromethyl)phenoxy]phenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



RN 179028-38-7 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-bromo-5-[[3-chloro-5-

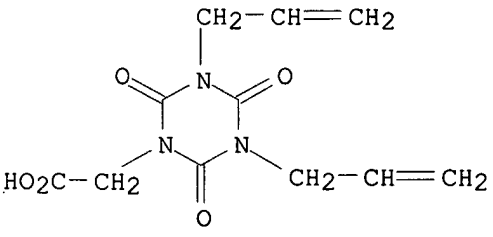
(trifluoromethyl)-2-pyridinyl]oxy]phenyl]tetrahydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



L36 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:23139 HCAPLUS
DOCUMENT NUMBER: 118:23139
TITLE: Study of the structure and interaction of isocyanurates with a mineral filler
AUTHOR(S): Kotorlenko, L. A.; Novikova, O. A.
CORPORATE SOURCE: Inst. Probl. Materialoved., Kiev, USSR
SOURCE: Kompozitsionnye Polimernye Materialy (1979-1996?) (1990), 45, 1-8
CODEN: KPMAD8; ISSN: 0203-3275
DOCUMENT TYPE: Journal
LANGUAGE: Russian

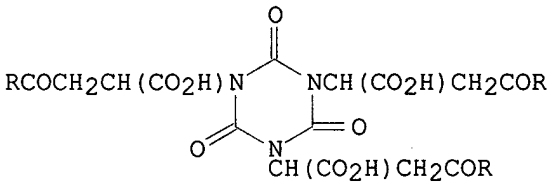
AB To study the interaction of diallyl isocyanurate derivs. with glass fibers, allyl, hydroxypropyl, epoxypropyl, carboxymethyl, and hydroxyethyl diallyl isocyanates adsorbed on silica gel were studied as a model system by IR spectroscopy. The semipolarity of the carbonyl bonds in the isocyanates was confirmed. Interaction of OH groups of the silica gel surface with the isocyanurate ring was considered. The quality of fiber lubricants based on isocyanuric acid derivs. increased with an increasing no. of substituents capable of reaction with OH groups of the surface and increasing interaction.

IT **13915-42-9**
RL: PRP (Properties)
(interaction of, with glass fibers, model systems for detn. of)
RN 13915-42-9 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl- (9CI) (CA INDEX NAME)

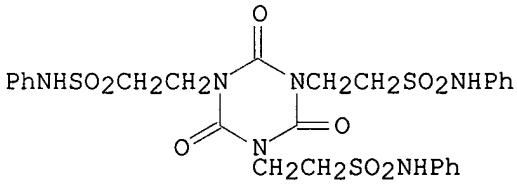


L36 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1988:56074 HCAPLUS
DOCUMENT NUMBER: 108:56074
TITLE: Reaction of cyanuric acid with some electrophilic olefins

AUTHOR(S): Babayan, A. A.; Agbalyan, S. G.
CORPORATE SOURCE: Inst. Org. Khim., Yerevan, USSR
SOURCE: Armyanskii Khimicheskii Zhurnal (1987), 40(4), 261-3
CODEN: AYKZAN; ISSN: 0515-9628
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 108:56074
GI



I

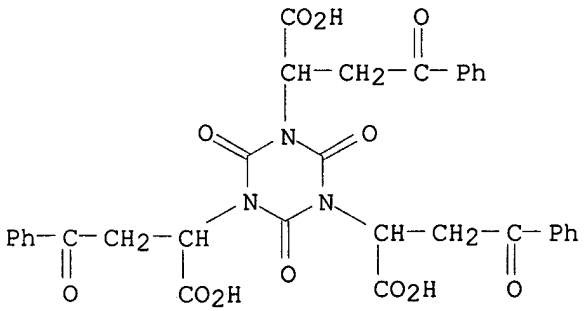


II

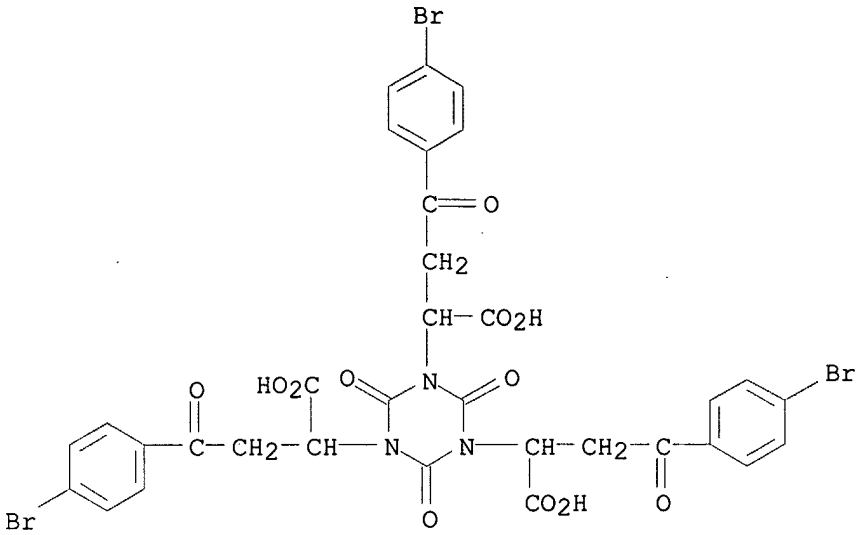
AB Addn. of cyanuric acid to RCOCH:CHCO2H in DMF contg. Katamin AB 4 h at 120-150.degree. gave 66-90% triazines I. Similar addn. of CH2:CHSO2NHPh gave 9% triazine II.

IT **112430-04-3P 112430-05-4P 112430-06-5P 112430-07-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

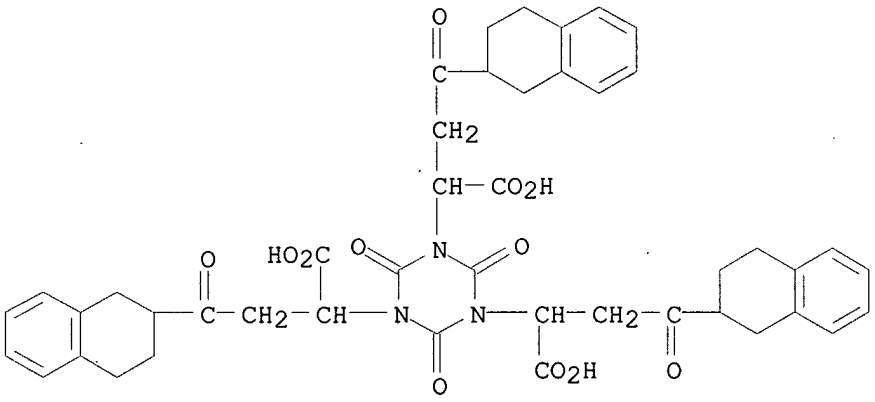
RN 112430-04-3 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-.alpha.,.alpha.',.alpha.''-tris(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)



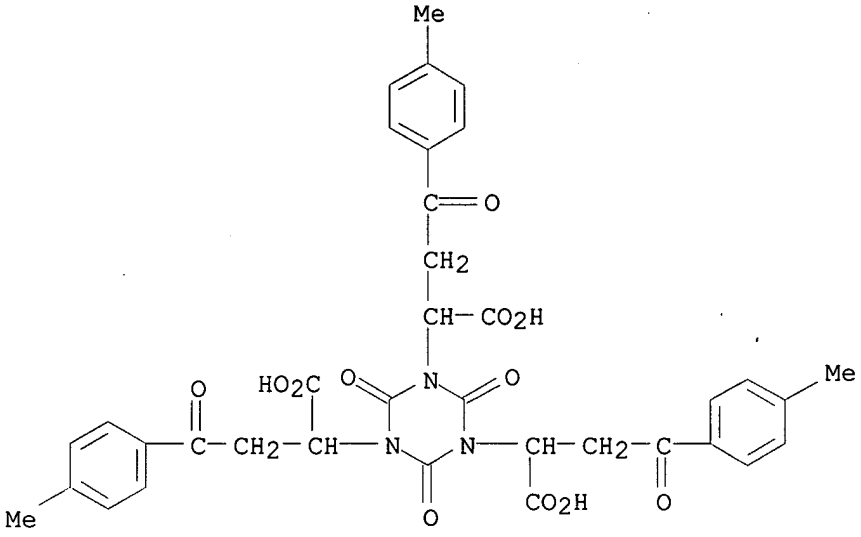
RN 112430-05-4 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, .alpha.,.alpha.',.alpha.''-tris[2-(4-bromophenyl)-2-oxoethyl]-2,4,6-trioxo- (9CI) (CA INDEX NAME)



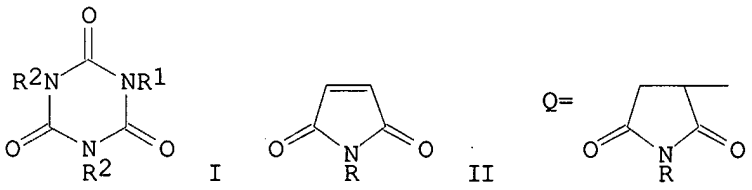
RN 112430-06-5 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-.alpha.,.alpha.',.alpha.''-tris[2-oxo-2-(1,2,3,4-tetrahydro-2-naphthalenyl)ethyl]- (9CI) (CA INDEX NAME)



RN 112430-07-6 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, .alpha.,.alpha.',.alpha.''-tris[2-(4-methylphenyl)-2-oxoethyl]-2,4,6-trioxo- (9CI) (CA INDEX NAME)



L36 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1986:478911 HCAPLUS
DOCUMENT NUMBER: 105:78911
TITLE: Reaction of N-substituted maleic acid imides with cyanuric acid and its derivatives
AUTHOR(S): Esayan, G. T.; Babayan, A. A.; Nersesyan, L. A.; Agbalyan, S. G.
CORPORATE SOURCE: Inst. Org. Khim., Yerevan, USSR
SOURCE: Armyanskii Khimicheskii Zhurnal (1985), 38(5), 300-4
CODEN: AYKZAN; ISSN: 0515-9628
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 105:78911
GI



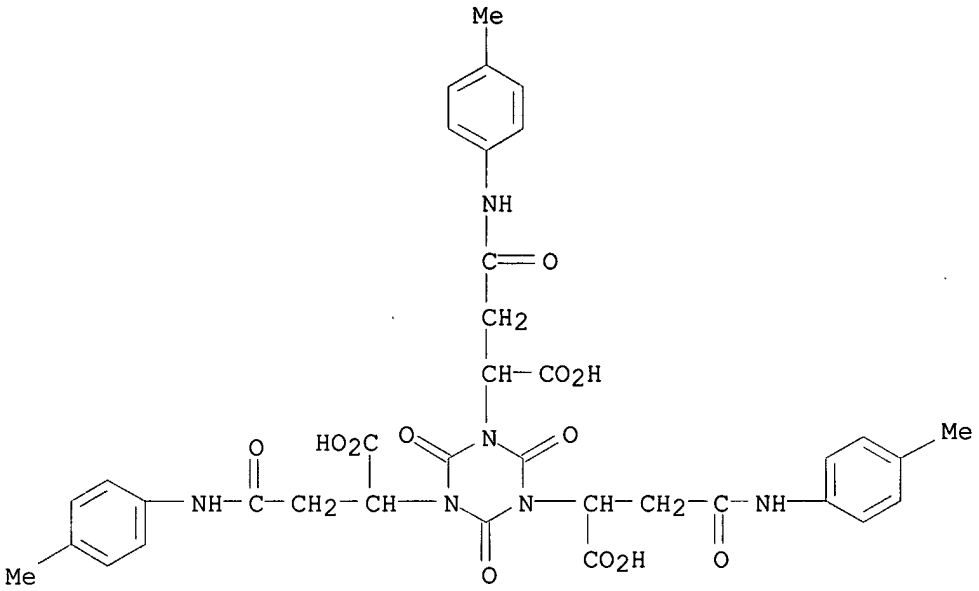
AB Treating cyanuric acid I (R1 = R2 = H) with maleimide II (R = Ph, p-tolyl, p-MeOC6H4, p-O2NC6H4) gave 62-98% I (R1 = R2 = Q) which (R = p-tolyl) was hydrolyzed to give 67% I [R1 = R2 = CH(CO2H)CH2CONHC6H4Me-p]. Similarly, I (R1 = CH2CH:CHClMe, R2 = H) gave 44-79% I (R1 = same, R2 = Q) and I (R1 = H, R2 = allyl) gave 58-85% I (R1 = Q, R2 = same).

IT **103761-64-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

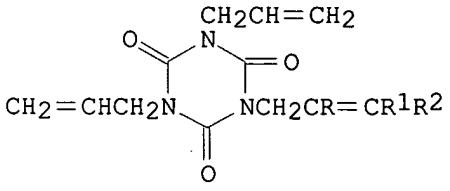
RN 103761-64-4 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, .alpha.,.alpha.',.alpha.''-tris[2-[(4-methylphenyl)amino]-2-oxoethyl]-2,4,6-trioxo- (9CI) (CA INDEX

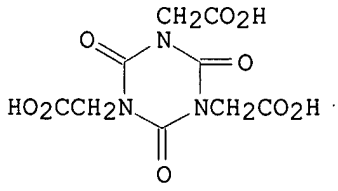
NAME)



L36 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:215401 HCAPLUS
DOCUMENT NUMBER: 92:215401
TITLE: Synthesis and reactions of allyl isocyanurates containing different groups
AUTHOR(S): Airapetyan, A. N.; Esayan, G. T.; Isayan, G. A.; Antonyan, V. N.
CORPORATE SOURCE: Inst. Org. Khim., Yerevan, USSR
SOURCE: Armyanskii Khimicheskii Zhurnal (1979), 32(11), 901-5
CODEN: AYKZAN; ISSN: 0515-9628
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI



I

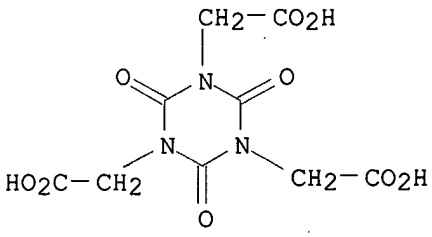


III

AB Oxidn. of isocyanurate I (R = H, R1 = Cl, R2 = Me) (II) gave 43.3% triacid III; H2C:CHCH2NHCONHCH2CH:CClMe was obtained in 40% yield by alk. hydrolysis of II. I (R = R1 = H, R2 = Me, Ph; R = H, R1 = R2 = Me; R = Me, R1 = R2 = H) were obtained in 51.0-80.5% yield by reaction of the Na salt of diallylisocyanurate with the corresponding chloride or bromide.

IT **1968-52-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 1968-52-1 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo- (9CI) (CA INDEX NAME)



L36 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:23822 HCAPLUS
DOCUMENT NUMBER: 88:23822
TITLE: Block polymers from isocyanurate-based polyesters and conventional polyester segments
INVENTOR(S): Herweh, John E.; Whitmore, William Y.
PATENT ASSIGNEE(S): Armstrong Cork Co., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4053538	A	19771011	US 1976-675453	19760409

PRIORITY APPLN. INFO.: US 1976-675453 19760409

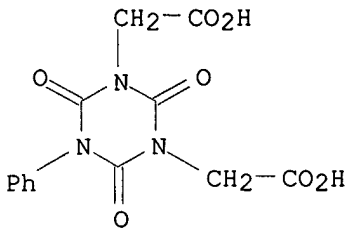
AB Linear, segmented polymers which had good thermal and mech. properties and which did not require crosslinking were prepd. by coupling a hard and a soft segment such that the difference between the glass transition temp. (Tg) of the hard and soft segment was 50-200.degree., and preferably 100-60.degree.. Thus, 1,3-bis(3-carboxypropyl)-5-phenylisocyanurate (I)-ethylene glycol copolymer [53192-69-1] (Tg = -57.degree.) was prepd. and coupled with hydroxy-terminated polycaprolactone (Tg = 81.degree.) (65:35, resp.) in the presence of bis(4-isocyanatocyclohexyl)methane coupler to give a segmented block polymer [64945-99-9] of mol. wt. 31,700, elongation 60%, tensile strength 3636, and which was cast into a hard, flexible, clear film. I [53192-68-0] was prepd. by hydrolysis of 1,3-bis(3-carbethoxypropyl)-5-phenylisocyanurate [53193-75-2] which was prepd. by alkylation of disodium phenylisocyanurate [53193-76-3] with ethyl-3-chlorobutyrate [7425-48-1].

IT **64945-97-7P 64945-98-8P**
RL: PREP (Preparation)
(block, segmented, prepn. and characterization of)

RN 64945-97-7 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl-, polymer with 1,2-ethanediol, 1,1'-methylenebis[4-isocyanatocyclohexane] and 2-oxepanone (9CI) (CA INDEX NAME)

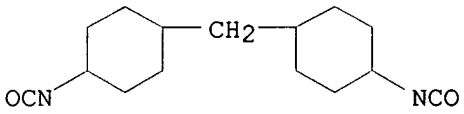
CM 1

CRN 53192-64-6
CMF C13 H11 N3 O7



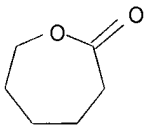
CM 2

CRN 5124-30-1
CMF C15 H22 N2 O2



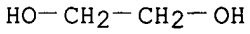
CM 3

CRN 502-44-3
CMF C6 H10 O2



CM 4

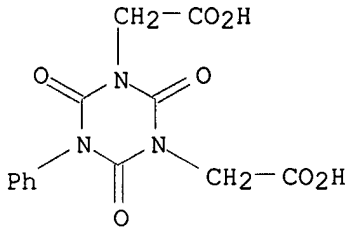
CRN 107-21-1
CMF C2 H6 O2



RN 64945-98-8 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl-, polymer with 1,4-benzenedicarboxylic acid, 1,2-ethanediol and 1,1'-methylenebis[4-isocyanatocyclohexane] (9CI) (CA INDEX NAME)

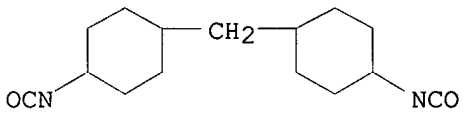
CM 1

CRN 53192-64-6
CMF C13 H11 N3 O7



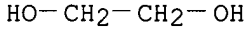
CM 2

CRN 5124-30-1
CMF C15 H22 N2 O2



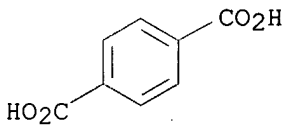
CM 3

CRN 107-21-1
CMF C2 H6 O2

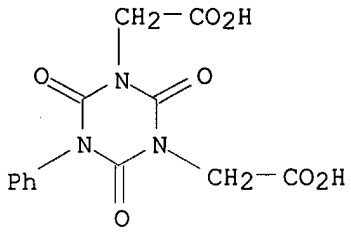


CM 4

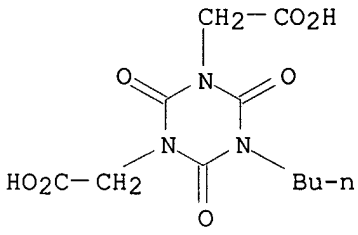
CRN 100-21-0
CMF C8 H6 O4



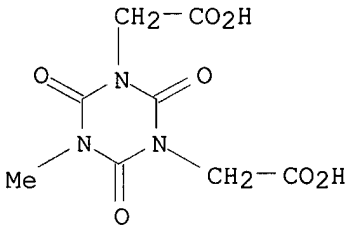
IT **53192-64-6P 53192-74-8P 53192-77-1P**
RL: PREP (Preparation)
(prepn. of)
RN 53192-64-6 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl- (9CI) (CA INDEX NAME)



RN 53192-74-8 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, 5-butyldihydro-2,4,6-trioxo- (9CI) (CA INDEX NAME)



RN 53192-77-1 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



L36 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1977:6347 HCAPLUS
DOCUMENT NUMBER: 86:6347
TITLE: Linear polyesters containing isocyanurate rings
INVENTOR(S): Kauffman, William J.
PATENT ASSIGNEE(S): Armstrong Cork Co., USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

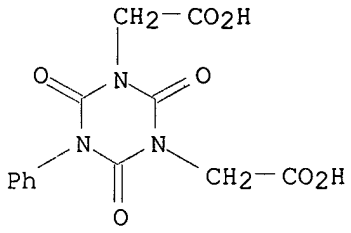
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3962192	A	19760608	US 1974-537688	19741231

PRIORITY APPLN. INFO.: US 1974-537688 19741231
AB 1,3-Bis(carboxymethyl)-5-phenylisocyanurate-1,4-butanediol polymer (I) [

53192-70-4] is useful in the prepn. of strong elastic fibers and films. Thus, 249 g disodium phenylisocyanurate [53193-76-3] in 2000 ml DMF was heated 8 hr at 75.degree. with 269.6 g ClCH2CO2Et to give 1,3-bis(carbethoxymethyl)-5-phenylisocyanurate [53193-74-1] which was hydrolyzed to 1,3-bis(carboxymethyl)-5-phenylisocyanurate (II) [**53192-64-6**]. Polymn. of II 20, 1,4-butanediol 50, and dibutyltin dilaurate 0.2 g gave I.

IT **53192-64-6P 53192-70-4P 53192-71-5P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

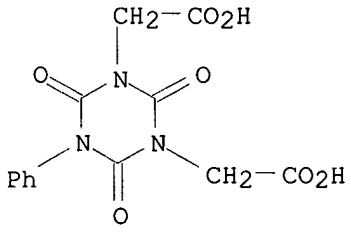
RN 53192-64-6 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl- (9CI) (CA INDEX NAME)



RN 53192-70-4 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl-, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

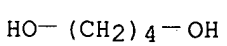
CM 1

CRN 53192-64-6
CMF C13 H11 N3 O7



CM 2

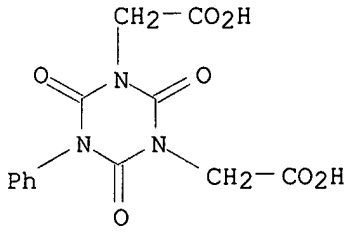
CRN 110-63-4
CMF C4 H10 O2



RN 53192-71-5 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl-, polymer with 1,6-hexanediol (9CI) (CA INDEX NAME)

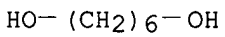
CM 1

CRN 53192-64-6
CMF C13 H11 N3 O7



CM 2

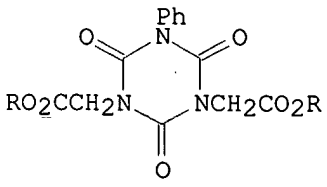
CRN 629-11-8
CMF C6 H14 O2



L36 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1976:494892 HCAPLUS
DOCUMENT NUMBER: 85:94892
TITLE: Isocyanurate compounds
INVENTOR(S): Kauffman, William J.
PATENT ASSIGNEE(S): Armstrong Cork Co., USA
SOURCE: U.S., 3 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3957778	A	19760518	US 1974-537689	19741231

PRIORITY APPLN. INFO.: US 1974-537689 19741231
GI



I

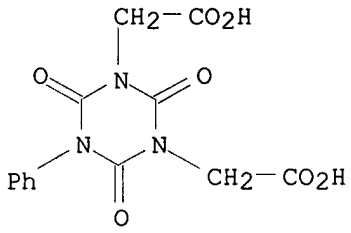
AB Disodium phenylisocyanurate [53193-76-3] is treated with Et chloroacetate [105-39-5] in an inert solvent at 25-150.degree. to give

1,3-bis(ethoxycarbonylmethyl)-5-phenylisocyanurate (I, R = Et) [53193-74-1], which is sapond. to give 1,3-bis(carboxymethyl)-5-phenylisocyanurate (I, R = H) [**53192-64-6**]. Polyesters based on these compds. have excellent strength and elasticity and are useful in fiber prepn.

IT **53192-64-6P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. of, for polyesters)

RN 53192-64-6 HCAPLUS

CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl- (9CI) (CA INDEX NAME)



L36 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1974:570113 HCAPLUS

DOCUMENT NUMBER: 81:170113

TITLE: Linear polyesters containing isocyanurate rings

AUTHOR(S): Kauffman, W. J.

CORPORATE SOURCE: Res. Dev. Cent., Armstrong Cork Co., Lancaster, PA, USA

SOURCE: Journal of Polymer Science, Polymer Chemistry Edition (1974), 12(8), 1735-43
CODEN: JPLCAT; ISSN: 0449-296X

DOCUMENT TYPE: Journal

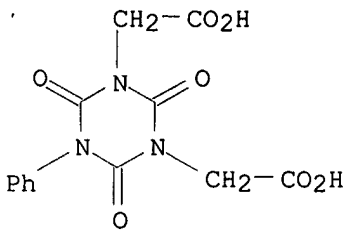
LANGUAGE: English

AB Linear polyesters contg. isocyanurate rings (such as 1,3-bis(carboxymethyl) 5-phenyl isocyanurate-ethylene glycol copolymer [**53192-65-7**], etc.) were prepd. to detn. the effect of structural variations on thermal and soly. properties. The substituent on the isocyanurate ring and the length of the acid side chain affected the glass transition temp. The series of polyesters from bis(carboxymethyl) phenyl isocyanurate and diols showed different solys. Thermal gravimetric anal. indicated that structural differences had no significant effect on thethermal stability of the polyesters.

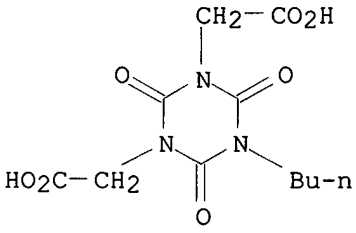
IT **53192-64-6P 53192-74-8P 53192-77-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 53192-64-6 HCAPLUS

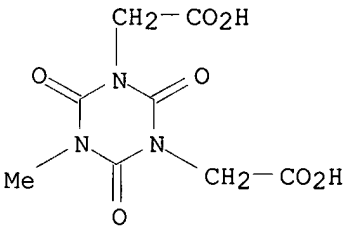
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl- (9CI) (CA INDEX NAME)



RN 53192-74-8 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, 5-butyldihydro-2,4,6-trioxo- (9CI) (CA INDEX NAME)



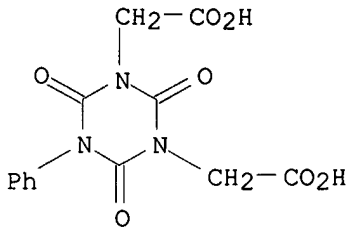
RN 53192-77-1 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-5-methyl-2,4,6-trioxo- (9CI) (CA INDEX NAME)



IT **53192-65-7 53192-70-4 53192-71-5 53192-75-9 53192-76-0 53192-78-2 53192-79-3**
RL: PROC (Process)
(thermal gravimetric anal. of)
RN 53192-65-7 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl-, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 53192-64-6
CMF C13 H11 N3 O7



CM 2

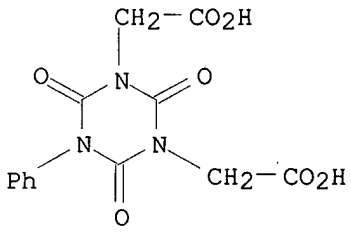
CRN 107-21-1
CMF C2 H6 O2

HO—CH2—CH2—OH

RN 53192-70-4 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl-, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 53192-64-6
CMF C13 H11 N3 O7



CM 2

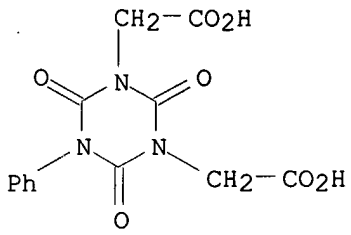
CRN 110-63-4
CMF C4 H10 O2

HO—(CH2)4—OH

RN 53192-71-5 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo-5-phenyl-, polymer with 1,6-hexanediol (9CI) (CA INDEX NAME)

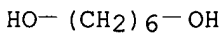
CM 1

CRN 53192-64-6
CMF C13 H11 N3 O7



CM 2

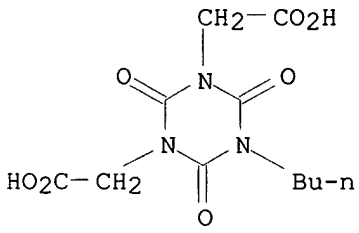
CRN 629-11-8
CMF C6 H14 O2



RN 53192-75-9 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, 5-butyldihydro-2,4,6-trioxo-, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

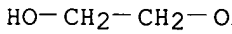
CM 1

CRN 53192-74-8
CMF C11 H15 N3 O7



CM 2

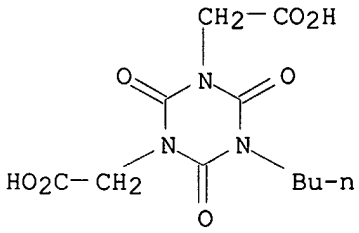
CRN 107-21-1
CMF C2 H6 O2



RN 53192-76-0 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, 5-butyldihydro-2,4,6-trioxo-, polymer with 1,6-hexanediol (9CI) (CA INDEX NAME)

CM 1

CRN 53192-74-8
CMF C11 H15 N3 O7



CM 2

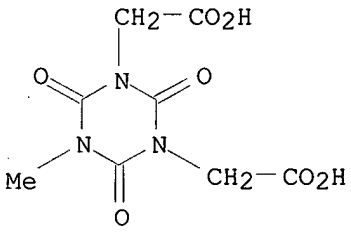
CRN 629-11-8
CMF C6 H14 O2

$HO-(CH_2)_6-OH$

RN 53192-78-2 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-5-methyl-2,4,6-trioxo-, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 53192-77-1
CMF C8 H9 N3 O7



CM 2

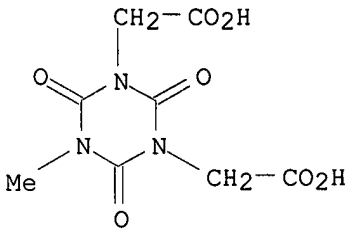
CRN 107-21-1
CMF C2 H6 O2

$HO-CH_2-CH_2-OH$

RN 53192-79-3 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-5-methyl-2,4,6-trioxo-, polymer with 1,6-hexanediol (9CI) (CA INDEX NAME)

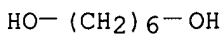
CM 1

CRN 53192-77-1
CMF C8 H9 N3 O7



CM 2

CRN 629-11-8
CMF C6 H14 O2

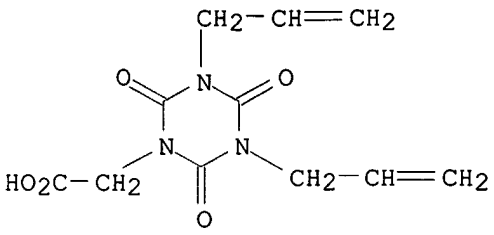


L36 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1974:536892 HCAPLUS
DOCUMENT NUMBER: 81:136892
TITLE: Dependence of the physicomechanical properties of glass fiber-reinforced polyester plastics on the surface treatment of the glass fiber
AUTHOR(S): Abraimova, V. P.; Novikova, O. A.; Shevlyakov, A. S.
CORPORATE SOURCE: Inst. Khim. Vysokomol. Soedin., Kiev, USSR
SOURCE: Sintez i Fiziko-Khimiya Polimerov (1974), 13, 150-3
CODEN: SFKPAO; ISSN: 0583-4317
DOCUMENT TYPE: Journal
LANGUAGE: Russian

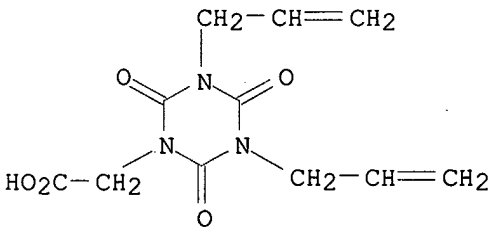
AB Surface treatment of glass fibers, used as reinforcement for polyester resins, with diallyl hydroxyethyl isocyanurate (I) [839-88-3], diallyl epoxypropyl isocyanurate (II) [20395-16-8], diallyl carboxymethyl isocyanurate (III) [**13915-42-9**] and diallyl hydroxybutyl isocyanurate (IV) [52794-84-0] was examd. in fibers contg. I and II as lubricants showed increased phys. mech. and elec. properties, compared to those treated with paraffin emulsions. I and II increased the resistance to water and cross-breaking strength of fibers, due to their soly. in water and softening of the fiber surface. They polymerize by themselves and contained allyl group which interacted with double bonds in unsatd. compds., forming a strong bond between the resins and glass fiber surface. The cryst. III had good adhesion properties but the lubricant film was rigid, brittle and decomposed on processing, whereas IV was unstable in storage, and the strength of fibers contg. it decreased significantly on exposure to water. Mech. properties of plastics contg. lubricants were directly dependent on their water absorption.

IT **13915-42-9**
RL: USES (Uses)
(lubricants, for glass fiber, mech. and elec. properties of reinforced plastics in presence of)

RN 13915-42-9 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl- (9CI) (CA INDEX NAME)

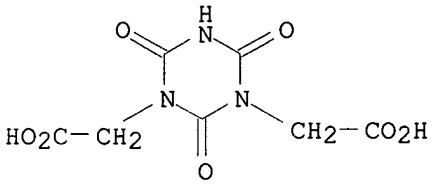


L36 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1974:71501 HCAPLUS
DOCUMENT NUMBER: 80:71501
TITLE: Evaluation of the effectiveness of potential finishing agents-lubricants
AUTHOR(S): Fainerman, A. E.; Lipatov, Yu. S.; Novikova, O. A.; Samoilenko, M. I.; Ivanova, G. V.
CORPORATE SOURCE: USSR
SOURCE: Plasticheskie Massy (1973), (9), 38-40
CODEN: PLMSAI; ISSN: 0554-2901
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The effectiveness of 14 lubricants and finishing agents for glass reinforced plastic, such as diallyl isocyanurate (I) [6294-79-7] and 12 alkyl derivs. such as hydroxyethyl diallyl isocyanurate (II) [839-88-3], 3-hydroxypropyl diallyl isocyanurate (III) [50978-73-9], or 4-hydroxybutyl diallyl isocyanurate (IV) [43193-30-2] was evaluated from surface tension data. The surface tension steadily decreased in the order II > III > IV. The phys. mech. properties of glass reinforced plastics modified with I derivs. were detd.
IT **13915-42-9**
RL: USES (Uses)
(lubricants, for glass fiber-reinforced plastics)
RN 13915-42-9 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl- (9CI) (CA INDEX NAME)



L36 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1973:505198 HCAPLUS
DOCUMENT NUMBER: 79:105198
TITLE: Synthesis of isocyanurates
AUTHOR(S): Khomenkova, K. K.; Frenkel, S. A.; Kornev, K. A.
CORPORATE SOURCE: Inst. Khim. Vysokomol. Soedin, Kiev, USSR
SOURCE: Ukrainskii Khimicheskii Zhurnal (Russian Edition) (1973), 39(5), 476-9
CODEN: UKZHAU; ISSN: 0041-6045

DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI For diagram(s), see printed CA Issue.
AB Isocyanurates (I; R = H, CH2CH:CH2, CH2CO2CHCH:CH2, Bu, CH2CO2Et; R1 = CH2CO2H, CH2CO2Et, CH2CO2Bu, CH2CO2CH2CH:CH2, Bu, hexyl, octyl, CH2CH2CN) were obtained in 50-90% yield by alkylation of mono-, di-, or trisodium cyanurate with the appropriate alkyl halide or chloroacetate.
IT **49581-26-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 49581-26-2 HCAPLUS
CN 1,3,5-Triazine-1,3(2H,4H)-diacetic acid, dihydro-2,4,6-trioxo- (9CI) (CA INDEX NAME)

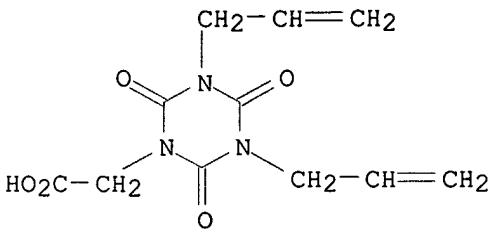


L36 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1972:488907 HCAPLUS
DOCUMENT NUMBER: 77:88907
TITLE: Polymerization of alkyl diallyl isocyanurates
AUTHOR(S): Khomenkova, K. K.; Balitskaya, L. G.; Kornev, K. A.
CORPORATE SOURCE: Inst. Khim. Vysokomol. Soedin., Kiev, USSR
SOURCE: Sintez i Fiziko-Khimiya Polimerov (1971), No. 9, 30-3
CODEN: SFKPAO; ISSN: 0583-4317
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The polymn. rate of 1-alkyl 3,5-diallyl isocyanurates, e.g. 1-carbethoxymethyl 3,5-diallyl isocyanurate [13915-41-8], 1-.beta.-cyanoethyl 3,5-diallyl isocyanurate [13915-46-3], 1-.beta.-hydroxyethyl 3,5-diallyl isocyanurate [839-88-3], or 1-ethyl 3,5-diallyl isocyanurate [5320-27-4], exceeded the polymn. rate of triallyl isocyanurate [1025-15-6] or triallyl cyanurate [101-37-1]. The polymn. rate was only slightly affected by the substituent with the exception of 1-.beta.-bromoethyl 3,5-diallyl isocyanurate [13915-44-1]. The bulk copolymn. of 1-alyl 3,5-diallyl isocyanurates with Me methacrylate gave heat resistant, transparent copolymers, almost insol. in org. solvents. The copolymers, e.g., 1-carboxymethyl 3,5-diallyl isocyanurate-methyl methacrylate copolymer [**35918-97-9**] exceeded poly(Me methacrylate) [9011-14-7] in heat resistance, but had comparable tensile strength, flexural strength, and impact strength.
IT **35918-97-9**
RL: PRP (Properties)
(heat resistance of)
RN 35918-97-9 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl-, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

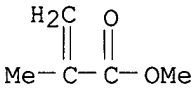
CRN 13915-42-9

CMF C11 H13 N3 O5



CM 2

CRN 80-62-6
CMF C5 H8 O2



L36 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1968:497783 HCAPLUS
DOCUMENT NUMBER: 69:97783
TITLE: Coating compositions comprising styrene interpolymer, aminoplast, and hydroxy-containing polyester
INVENTOR(S): Hill, Robert W.; Galiano, Francis R.
PATENT ASSIGNEE(S): Gulf Oil Corp.
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3402219	A	19680917	US 1965-447082	19650409

PRIORITY APPLN. INFO.: US 1965-447082 19650409
GI For diagram(s), see printed CA Issue.
AB A solvent soln. useful for coating thermoplastic polymer articles is described. It contains a curable mixt. of a OH-contg. interpolymer of styrene, curable aminoplasts, and a OH-contg. polyester of OH no. 120-80. Thus, 414 g. 2,4,6-trioxo-s-triazine-1,3,5-(2H,4H,6H)-tripropionic acid (I) and 292 g. neopentyl glycol were heated for 2 hrs. at 120.degree., 68.5 g. adipic acid was added, and the mixt. was heated at 120-5.degree. for 6 hrs. and at 145-50.degree. for 3 hrs. to give a product (I) of acid no. 50-5 and OH no. 140. Then, 5 parts hydrogenated styrene-methacrolein copolymer contg. 63% styrene, 9.8% OH groups, and mol. wt. 8000, 2.7 parts hexakis(methoxymethyl)melamine, 8 parts I, and 0.3 part p-toluenesulfonic acid were dissolved in dioxane, the soln. was dild. to 17% component salts, then coated onto a polyethylene bottle, cured at 83.degree. for 15 min. with no flash-off time necessary to give a film tack free on removal from the oven. Gloss, adhesion, and antistatic properties were all good. Similarly, initial styrene copolymers used are oxidized styrene-butadiene

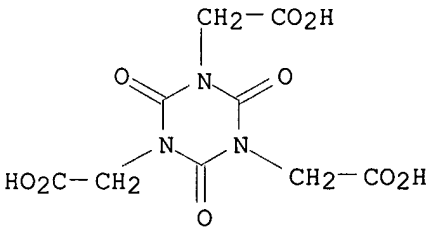
copolymers, styrene-allyl alc. copolymers, and polyester components were prepd. by using different amts. of reactants or by using 2,4,6-trioxo-s-triazine-1,3,5-(2H,4H,6H)- triacetic acid instead of I or including pentaerythritol, tall oil fatty acids, 2-ethylhexanol, and propylene glycol.

IT **29385-74-8**
RL: USES (Uses)
(coatings of styrene interpolymers and, antistatic)

RN 29385-74-8 HCAPLUS
CN s-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-, polyester with adipic acid and 2,2-dimethyl-1,3-propanediol (8CI) (CA INDEX NAME)

CM 1

CRN 1968-52-1
CMF C9 H9 N3 O9



CM 2

CRN 126-30-7
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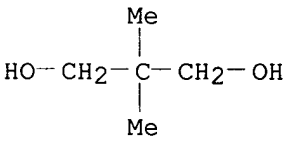

CM 3

CRN 124-04-9
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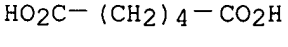


L36 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1967:465513 HCAPLUS
DOCUMENT NUMBER: 67:65513
TITLE: Coating compositions containing polyesters of 2,4,6-trioxo-s-triazine-1,3,5(2H,4H,6H)-trialkanoic acid and a polyhydric alcohol, with a polyepoxide and an aminoplast resin

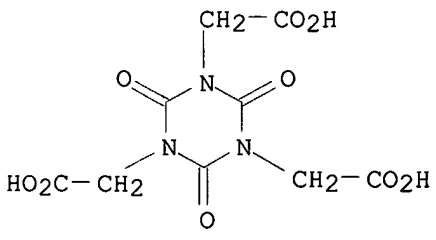
INVENTOR(S): Hill, Robert William; Galiano, Francis R.
PATENT ASSIGNEE(S): Gulf Oil Corp.
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3329738		19670704	US	19640908

AB The subject coatings are flexible, have good adhesion to thermoplastic substrates, cure at low temps., and are good barriers to solvent vapors. Thus, 414 g. 2,4,6-trioxo-s-triazine-1,3,5(2H,4H,6H)tripropionic acid and 292 g. neopentyl glycol were heated 2 hrs. at 120.degree.. Adipic acid (68.5 g.) was added and heating was continued for 6 hrs. at 120-5.degree. and 3 hrs. at 145-50.degree. to yield a polyester (I) with 50-5 acid no. I was dild. with MeOEt to 80% solids, and 70 parts of this soln. was added to 30 parts MeOEt soln. (80% solids) of a com. epoxy resin (Epon 820). To this mixt., 20 parts 80%-solids soln. of hexamethylolmelamine hexamethyl ether in MeOEt and 10 parts dioctyl cresyl phosphate plasticizer were added to give a coating compn. (II). Triethylaminetetramine (1 part/20 parts epoxy resin) was added to II dild. to 30% resin solids. Polyethylene bottles were dipped into the catalyzed soln. and the coating was cured for 15 min. at 190.degree.F. to give a flexible film on the bottles which had good gloss, adhesion, and antistatic properties, and reduced losses of org. solvents contained in the bottles. Polyesters from 2,4,6-trioxo-s-triazine-1,3,5(2H,4H,6H)-triacetic acid with 1,2-propanediol and pentaerythritol, other epoxides, e.g. tetrachloral-bisphenol A diglycidyl ether and glycerol triglycidyl ethers, and other aminoplasts, e.g. butylated melamine-HCHO resins and butylated dimethylolurea resins, are also blended into vehicles for coating polystyrene, acrylonitrile-butadiene-styrene copolymers, polyacrylonitrile, poly(vinyl chloride), cellulose acetate butyrate, and propionate, polycarbonate, and PhOH-HCHO resins.

IT **1968-52-1**
RL: USES (Uses)
(polyesters with glycols or polyhydric alcs., for coatings)

RN 1968-52-1 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo- (9CI) (CA INDEX NAME)



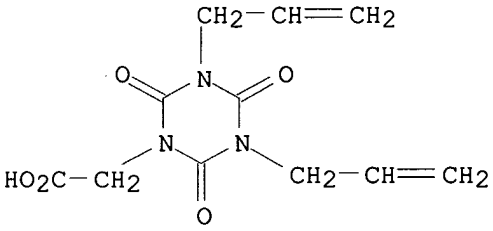
L36 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1967:55464 HCAPLUS
DOCUMENT NUMBER: 66:55464
TITLE: Synthesis of 5-alkyl-1,3-diallyl isocyanurates with functional groups in the alkyl residue

AUTHOR(S): Balitskaya, L. G.; Khomenkova, K. K.; Kornev, K. A.
CORPORATE SOURCE: Inst. Chem. High Polymers, Kiev, USSR
SOURCE: Zhurnal Organicheskoi Khimii (1966), 2(8), 1421-3
CODEN: ZORKAE; ISSN: 0514-7492
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB ClCH2-CO2Et and Na salt of diallyl isocyanurate (I) gave after 40 min. on the steam bath 96% 5-(carbethoxymethyl)-1,3-diallyl isocyanurate, m. 60.degree., which heated with concd. HCl 15 hrs. gave 33% carboxy analog, m. 90.degree.. I and BrCH2CH2OH in Me2NCHO heated 10 min. gave 80% 5-(.beta.-hydroxyethyl)-1,3-diallyl isocyanurate, m.37.degree.; treatment with (CH2Br)2 similarly gave 48% .beta.-bromoethyl analog, m. 31.degree. (also formed in the reaction was .alpha.,.beta.-bis[5-(1,3-diallylisocyanuro)]ethane, m. 64.degree.). I and CH2:- CHCN in the presence of aq. Et3N gave in 3 hrs. heating 90% 5-(.beta.-cyanoethyl)-1,3-diallyl isocyanurate, m. 58.degree.. I and ClCH2-CH(OH)CH2OH in Me2NCHO in 1 hr. on a steam bath gave 5-(.beta.,.gamma.-dihydroxypropyl)-1,3-diallyl isocyanurate, b0.02 155.degree., n 20 D 1.5210; bis-3,5-(dinitrobenzoate) m. 90.degree..

IT **13915-42-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 13915-42-9 HCAPLUS
CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl- (9CI) (CA INDEX NAME)



L36 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1966:52129 HCAPLUS
DOCUMENT NUMBER: 64:52129
ORIGINAL REFERENCE NO.: 64:9750a-c
TITLE: Isocyanurate compounds and preparative processes
INVENTOR(S): Burdick, Donald L.; Osborn, Myron D.
PATENT ASSIGNEE(S): Gulf Oil Corp.
SOURCE: 3 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3230220		19660118	US	19610424

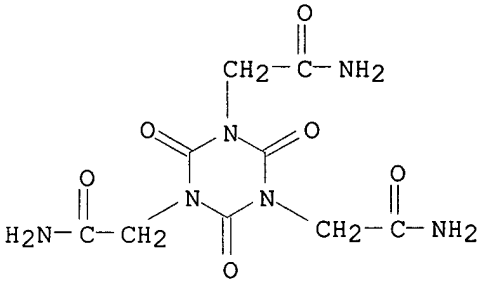
AB The title compds. are prepd. by treating trisodium cyanurate (I) with a halo-substituted acetonitrile or acetamide to form tris(cyanomethyl)isocyanurate (II) and tris(carbamoylmethyl)isocyanurate (III). These derivs. are hydrolyzed to tris(carboxymethyl)isocyanurate (IV), useful in the prepn. of polymers. Thus, 195 g. I in 200 ml. HCONMe2 was heated to 95.degree. and treated, over 2 hrs., with 280.5 g.

ClCH2CONH2 in 500 ml. HCONMe2. The mixt. was held 18 hrs. at 90.degree., cooled to give a ppt., and filtered off. The solid was washed with H2O and Me2CO to give 240.2 g. cryst. III, m. 350-1.degree.. III (5 g.) was refluxed 3 hrs. in 125 ml. concd. HCl to yield white cryst. IV, m. 264-6.degree.. ClCH2CN (19.5 g.) was added over 2 hrs. to 19.5 g. I in 100 ml. HCONMe2 at 50.degree.. The mixt. was held 2.5 hrs. at 50.degree., cooled, and filtered. The filtrate was evapd. to dryness in vacuo and the residue triturated with 250 ml. of boiling H2O to give II, m. 232-4.degree.. II (2.6 g.) was refluxed 5 min. in 10 ml. concd. HCl to give 2.85 g. III. IV (91 g.), 53 g. propylene glycol, and 14.5 g. adipic acid was heated 3.5 hrs. at 140-50.degree. to give a polyester having an acid number of about 85. The polymer was dissolved in 150 ml. H2O contg. 8 ml. concd. NH4OH to give a transparent soln. contg. 50% by wt. of solids and showing a viscosity of X-Y (Gardner Scale).

IT **1843-48-7**, s-Triazine-1,3,5(2H,4H,6H)-triacetamide, 2,4,6-trioxo-
1968-52-1, s-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-
(prepn. of)

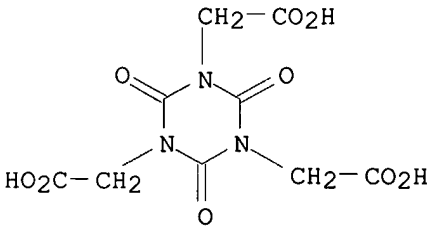
RN 1843-48-7 HCAPLUS

CN s-Triazine-1,3,5(2H,4H,6H)-triacetamide, 2,4,6-trioxo- (7CI, 8CI) (CA INDEX NAME)



RN 1968-52-1 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo- (9CI) (CA INDEX NAME)



L36 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:	1965:403376 HCAPLUS
DOCUMENT NUMBER:	63:3376
ORIGINAL REFERENCE NO.:	63:619h,620a-c
TITLE:	Isocyanurates
PATENT ASSIGNEE(S):	Spencer Chemical Co.
SOURCE:	4 pp.
DOCUMENT TYPE:	Patent
LANGUAGE:	Unavailable

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 988631		19650407	GB	
DE 1195761			DE	

PRIORITY APPLN. INFO.: US 19610424

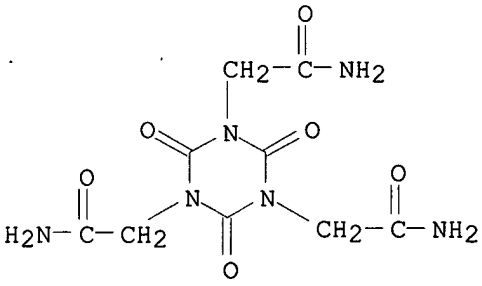
GI For diagram(s), see printed CA Issue.

AB The title compds. were prepd. by heating an alkali metal or a quaternary ammonium salt of cyanuric acid with halogenated AcNH2 or MeCN at 50-150.degree. in an inert medium, and subsequent acid hydrolysis. Thus, to a slurry of 195 g. trisodium cyanurate (I) in 200 ml. HCONMe2 heated to 95.degree., a soln. of 280.5 g. ClCH2CONH2 in 500 ml. HCONMe2 was added dropwise with stirring, the soln. kept 18 hrs. at 90.degree., and cooled to yield 240.2 g. cryst. tris(aminocarbonylmethyl) isocyanurate (II), m. 350-1.degree.. A mixt. of 5 g. I in 125 ml. concd. HCl was refluxed 3 hrs., and cooled to yield tris(carboxymethyl) isocyanurate (III), m. 264-6.degree.. Similarly, reaction of ClCH2CN with I gave tris(cyanomethyl) isocyanurate (IV), m. 232-4.degree. (MeCN). IV (2.6 g.) in 10 ml. concd. HCl refluxed 5 min. gave II. A mixt. of 91 g. III, 53 g. propylene glycol, and 14.5 g. adipic acid was heated with stirring 3.5 hrs. at 140-50.degree.. The polyester formed (acid no. .apprx.85) was dissolved in 150 ml. H2O contg. 8 ml. concd. NH4OH to provide a transparent soln. contg. 50% by wt. of solids. This soln. had a viscosity of X-Y (Gardner Scale). III is useful in the prepn. of its polymers (polyesters and polyamides) which in turn are useful in forming coatings, and molded plastic articles.

IT **1843-48-7**, s-Triazine-1,3,5(2H,4H,6H)-triacetamide, 2,4,6-trioxo-
1968-52-1, s-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-
(prepn. of)

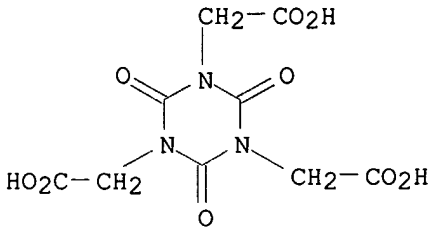
RN 1843-48-7 HCAPLUS

CN s-Triazine-1,3,5(2H,4H,6H)-triacetamide, 2,4,6-trioxo- (7CI, 8CI) (CA INDEX NAME)



RN 1968-52-1 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo- (9CI) (CA INDEX NAME)



text/index searching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L2         5423 SEA FILE=HCAPLUS ABB=ON  PLU=ON  YU Y?/AU
L3         1022 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HOUGHTEN R?/AU
L4         6440 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3)
L5           19 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 AND ?TRIAZIN?
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L8            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L6 OR L7)
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inventor search

I cited

all of these are the inventor's citation

CT = controlled terminology (indexing)

PFT = old, new & "used for" terms